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UPPER-CLASS CREDITS AND COLLEGE ADMISSION

One of the most desirable innovations in the matter of college admissions is the reduction of the number of high-school units which shall be reported to the college to twelve. This must be accompanied by the adoption of a plan which shall insure that these twelve units belong to the group of studies appropriate to the senior high school. The present system formalizes the ninth grade and tends to formalize the whole junior high school period without vitalizing in any way the upper grades of the high school. By excessive attention to freshman algebra and ancient history, college authorities are misled into lenient acceptance of the most elementary credits in language, science, and history, accumulated during the senior year of the high school. There is a lack of academic progression in the curriculum of many high-school pupils, which is permitted by the elective system and is one of the chief reasons for the lack of power of concentration exhibited by many who graduate.

The high schools are no worse in this failure to give proper emphasis to the upper years of the curriculum than are the colleges themselves. In most institutions it is possible for upper-class college students to arrange their programs so that their intellectual

contacts will be wholly with introductory courses. A check on this tendency is being exercised in some degree by the requirements laid down by the better professional schools. The time may come when college graduation will be defined in terms of what a student has acquired rather than in terms of what he presented for admission and the number of hours he spent attending recitations.

The English university system has often been praised on this side of the Atlantic for its honors courses without a very clear recognition of the fact that the whole English conception of graduation is different from that held in America. Honors go to students on the basis of achievement and pass degrees for attending classes. It is time that we too devised some way of recognizing outcomes rather than mere formal items.

The high schools of the country can perform a large service if they will present to the colleges a new plan of admission, based on maturity and a limited number of advanced credits. This is the way in which it will be legitimate for high schools to insist that the colleges leave the lower schools free to organize programs which shall produce intellectual maturity in the best way possible. In times past the high schools have profited greatly by the help which the colleges have given in establishing and maintaining standards. The time has come when the high schools can reciprocate by arousing the colleges to a recognition of the fact that it is a waste of administrative energy for the colleges to dictate the freshman courses in high school. The colleges want able students; these can be supplied without the colleges taking over the arrangement of the high-school program in detail.

If the high-school principals of the country can evolve a clear-cut plan of describing graduates in terms of the work of the later years of the high school, they can inaugurate a most useful reform and one which will have large influence on the whole scheme of American education.

WHY PUPILS FAIL IN HIGH SCHOOL

Professor J. B. Edmonson, of the University of Michigan, has collected from a group of high-school principals a list of the policies and practices which, in their judgments, tend to increase the num-

ber of failures in the high school. He has reported these to the principals of the state of Michigan in the form of a mimeographed circular, with the request that they add to the list.

Such a list of difficulties suggests the administrative measures which should be adopted in order to fit the work of the schools to the needs of the pupils. It also furnishes the basis for a course in high-school administration.

The list is as follows. In its present form it is not free from duplications, and the topics are not arranged in the order of importance.

1. The policy of assigning such large numbers of pupils to teachers as to discourage attention to the individual needs of pupils.
2. The practice of many teachers of seeking to stimulate a spirit of work and a respect for scholarship through the fear of failure.
3. The practice of some principals of allowing teachers to fail large numbers of pupils without requiring an explanation of the causes of the failures.
4. The lack of uniformity in the minimum requirements in the sections taught by different teachers, with the result that twice as much work may be required by some teachers as is required by others.
5. The failure of the principal to acquaint beginning teachers with the scope of work to be covered during a semester and the standards to be maintained.
6. The practice of teachers of placing an excessively high value on the results of final examinations.
7. The practice of teachers of giving zero for unexcused absences, tardiness, or disorderly conduct in class.
8. The practice of allowing teachers to frame their own final examination questions without any checking by associate teachers or supervisors.
9. The practice of many teachers of using the entire class period for oral testing with little or no attention to the difficulties in advance assignments or to the difficulties of individual pupils.
10. The practice of allowing backward pupils to elect subjects that require better native ability and better previous preparation than they possess.
11. The practice of some principals of urging their teachers to distribute their marks according to the normal frequency curve.
12. The tendency of some teachers to be more concerned with teaching subject-matter than with the training of pupils.
13. The practice of some teachers of assuming a certain quantity and quality of previous training for all pupils and beginning their courses at this assumed point regardless of the real facts of preparation.
14. The failure to provide special sections or special courses for pupils of low ability or inadequate preliminary training.
15. The failure of school authorities to instruct parents as to the amount of home study required and to define the conditions favorable to home study.

16. The failure of the school to seek to discover the real cause or causes for the failure of the individual pupil.

17. The fear on the part of some teachers that a low percentage of failure will be interpreted by associates and supervisors as meaning "low standards."

18. The failure of principals to require that teachers devote a minimum amount of time to specific training in the habits of study peculiar to the different studies.

19. The practice of allowing all entering ninth-grade pupils to elect four studies regardless of their previous performance in the grades or of the results of intelligence tests.

20. The failure of teachers to define the minimum essentials in their courses and to provide adequate drill.

21. The failure of the school authorities to regulate the social and athletic activities of the school in the interests of classroom work.

22. The practice of requiring the same quality and amount of work in ninth-grade subjects as in twelfth-grade subjects.

23. The failure of teachers to organize their work in terms of definite, specific tasks that pupils *must perform* at a stated time.

24. The failure of school authorities to organize adequate personnel records for individual pupils and to use these records in the educational guidance of pupils.

25. The practice of assuming that ninth-grade pupils do not need special help and counsel in making adjustment to the new and perplexing conditions presented by the high school.

26. The policy of allowing pupils failing in two or more subjects at the middle of the semester to continue to carry a full load of work.

27. The policy of allowing unrestricted trial of five or more subjects during any semester after Grade IX B.

28. The policy of encouraging all pupils to remain in high school, including those of relatively low native endowment, the habitual "flunkers," and the intellectual loafers.

29. The policy of deferring pupil-progress appraisals until the end of the semester.

30. The tendency of teachers and schools to place the responsibility for success or failure solely on the pupil.

PRINCIPAL'S CONFERENCE DAY

The most effective means of supervision of teachers, in my opinion, consists in conferences with teachers concerning their work, combined with occasional visits to their classes. I place major emphasis on the conferences. It has been my practice for some time to do nothing on Tuesday of each week but confer with teachers with regard to their work. Everyone, including parents and pupils,

understands that Tuesday is set aside for this purpose. Each teacher has a definite appointment for a conference of forty-five minutes, if that much time is needed. Only very real emergencies are permitted to interfere. I am in conference from 8:30 A.M. to 5:00 P.M. It is, in many respects, the most exhausting day of the week, but I think the results have proved it to be one of the most profitable.

The effect on the teacher is excellent. He knows that he will have an opportunity each week to discuss his problems with the principal. He knows that he will be asked about his work and his plans for its development. He knows that he may be asked about the progress of individual pupils. The plan also gives the principal an excellent opportunity to discuss with the teacher many of the larger phases of school life, thus influencing him to regard himself as an important part of the school as a whole.

I am able to devote a day each week to these conferences because my school is small. Even if a school is so large as to make such conferences possible no more frequently than once a month, I think that the plan would be well worth while.

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ELIMINATING UNETHICAL METHODS IN THE ADOPTION OF TEXTBOOKS

Representatives of D. Appleton and Company were so much impressed by the unique methods imposed on competing publishers in a recent state adoption of textbooks in Louisiana that the company includes a description of these methods in its "Book Chat."

There is much comment among schoolbook publishers and school teachers concerning a stand recently taken by the Louisiana State Department of Education. In the recent adoption of high-school textbooks the Louisiana State Department of Education put forth certain conditions and proposals to the publishers that are noteworthy for both business and ethical reasons. Superintendent T. H. Harris, in setting forth the conditions under which books were to be considered, had a number of striking suggestions to make, but the one that stood out most conspicuously was that which dealt with the "knocking" of competitors' books.

If, during the presentation of his texts before the Louisiana board, a publisher's representative had any adverse criticism to offer concerning a particular

competing text, he was required, under the plan, to notify the examining board. A stenographer would then be called in to record the criticism offered. One copy of the criticism would be retained by the examiners for their consideration. One copy would be sent to the publisher of the text criticized, and one copy sent to the home office of the representative's company.

This new ruling was seen to be as important as it was novel. As a matter of fact, reputable publishing houses submit only good standard texts. There are, of course, marked differences in content and method in the various texts. Organization, presentation, and style all differ. But there are certain well-established standards of judgment for texts in any field, and these are known alike to the competent school person and to the able representative. A dignified, intelligent presentation of the merits of the text which induced the publishing company to accept it for publication was what the Louisiana authorities were requesting of the textbook publishers. Defamation of competing texts was to be avoided, and books were to be advocated on the basis of their merits. It will be interesting to note the comment and discussion which the action of the Louisiana State Department of Education will awaken. It seems certain that both school authorities and publishers will agree that the elimination of the practice of criticizing competing texts will mark a milestone in both business ethics and business efficiency.

Superintendent Harris writes as follows in answer to the question asked by the editors of the *Elementary School Journal* regarding the operation of the plan:

The requirement was made for the reason that it is fair to a competitor to give him an opportunity to answer any criticisms that may be directed against his publications.

It may be of interest to know that only one book representative attempted to violate the regulation and that when the stenographer was ready to take down his criticism, he decided that he had none to make.

ANALYTICAL VERSUS FREE READING OF ENGLISH CLASSICS

Data which will throw any light on the value of close, analytical study of literature as contrasted with free and fluent reading ought to be especially welcome to curriculum-makers and to teachers of English. For at least a generation the older methods of analyzing literature have been seriously questioned, chiefly on the ground that such treatment does not, through normal and mutual reading experiences, develop useful and permanent habits, tastes, and attitudes. Those who criticize *intensive* study propose to substitute for it, at least with all classes below the eleventh grade, *extensive* reading of the same material or preferably easier material more nearly in keep-

ing with the capacities of the children. In brief, the issue is whether the *study* of literature, said to be unnatural and unproductive, is to be supplanted by, or at least very liberally supplemented with, the experiencing of literature in a normal way.

Upon this issue, in the difficult field of measuring tastes and attitudes, a recent study of C. S. Crow (*Evaluation of English Literature in the High School*, Teachers College Contributions to Education, No. 141) presents some suggestive, if not conclusive, evidence. Mr. Crow asked 1,999 high-school Seniors and Juniors to examine a list of seventy-four English classics, to indicate which they had studied closely and which they had read freely, and to express their opinions on the following points:

1. Leisure-time value: interesting, entertaining, excellent book for my leisure time versus tiresome, irksome for me.

2. Moral value: gave me high ideals of character, loyalty, love, service, etc., which help to direct my life, versus the negatives.

3. Artistic value: artistic, impressed me with its beauty of thought and expression, versus the negatives.

4. Permanent value: just the kind of book I should like to own, to read again and again and have my friends read, versus the negatives.

The pupils used the following scale in expressing their judgments on each of these items in the case of each of the seventy-four books:

Favorable				Unfavorable		
+3	+2	+1	0	-1	-2	-3
very	considerably	a little		a little	considerably	very

Passing by the data which Mr. Crow marshals concerning each of the seventy-four classics—somewhat of a revelation concerning certain favorites of the high-school curriculum—the point in hand is the effect on the pupils' judgments of close study as contrasted with free reading which was calculated for each of the four general questions. The investigator carefully analyzed his data concerning each of the four major inquiries and summarized thus:

Which gives better results in the teaching of these seventy-four classics, close class study or a more cursory reading?

Eleven of the classics are rated higher on Scale 1 (leisure-time value) by both boys and girls who "studied" them than by boys and girls who "read" them, respectively. With seven of the classics both boys and girls who "read"

them report them higher than those who "studied" them. In contrast, however, there are ten classics which scored higher by the boys when "read" and higher by the girls when "studied." Since "reading" is much more economical of time, the above facts with reference to these particular classics should be considered in the interests of educational efficiency.

Close class "study" rather than "reading" gives a higher rating on Scale 2 (setting up ideals) for both boys and girls with sixteen of the classics. Nine of the classics are scored higher by the boys who "read" them and six higher by the girls who "read" them than by the boys and girls respectively who "studied" them.

Four of the classics are scored decidedly higher in artistic appreciation when "studied" by the boys than when "read"; eight give equally higher scores when "studied" by the girls than when "read." On the other hand, five of the classics score higher when "read" by the boys, and only three score decidedly higher when "read" by the girls instead of "studied."

So far as the value of Scale 4 (permanently valuable) is concerned, the girls who "studied" eleven of the classics scored them higher than the girls who "read" them; the boys who "studied" scored only three of the classics higher than those who "read" them. On the other hand, the girls who "read" scored thirteen of the classics higher than those who "studied" them, and the boys who "read" scored eighteen of the classics higher than those who "studied" them.

As now taught, "reading" instead of close class study means a higher score by both girls and boys on a fair percentage of the classics. Taking into consideration the above findings, I should like to see some teachers of English literature experiment by having some of the classics which are now "studied" "read" instead, and vice versa.

Mr. Crow does not make the mistake of drawing final conclusions of a general nature. His inferences are rightly made concerning special classics. However, his data, open as they admittedly are to the limitations of the questionnaire method, especially when applied to boys and girls concerning their opinion of school work, certainly justify the questions raised. The inferences are encouraging to the advocates of extensive reading, and Mr. Crow's final suggestion, here quoted, opens up for teachers a wide field for classroom experimentation.

VARIETIES OF SUPERVISED STUDY

The Bureau of Educational Research of the University of Illinois has issued a bulletin by W. A. Brownell entitled, *A Study of Supervised Study*, in which an analysis is made of the various meanings

attributed in educational discussions and school reports to the term "supervised study."

Some authors use the term to refer to the abandonment of the conventional forms of recitation; others use it to describe the administrative device of lengthening the period during which the teacher meets the class. All told, the author reports twenty-five or thirty different techniques which claim the name "supervised study."

The advantages which are supposed to follow the adoption of one or another of the plans are enumerated. It is clear from the list of supposed advantages that enthusiasts for supervised study have been extravagant in their expectations. For example, it is contended that supervised study "eliminates the lazy teacher." A critical examination of the "advantages" shows that contradictory and indefensible ideas are entertained by different writers.

A summary of the investigations which have been made of the effects of various plans of supervised study makes it clear that the school encounters now, as always, the obstinate facts of human nature and that the ills of earlier days are by no means eliminated by the newer methods.

The author's conclusions, which may be quoted in part, supply a wholesome check on uncritical writing and thinking.

In concluding this discussion, we shall make a number of observations of a rather general sort regarding both the literature on supervised study and the attitude taken by writers toward this new procedure.

In the first place, it must be admitted that an unfortunately large amount of writing on supervised study is repetitious and, to put it mildly, futile. The general impression resulting from the reading of several hundred pages of periodical matter on the subject is that the same things might have been said to greater effect in a fraction of the space actually used.

In the second place, we are struck by the failure of some writers to confine their discussions to supervised study without involving unrelated issues. We need mention here as examples only a few of the newer phases of methodology and administrative procedure which are found continually and variously associated with supervised study: classification of pupils in homogeneous groups, teaching by projects, individual instruction, and educational and vocational guidance. Some writers even add to the general confusion by making supervised study equivalent in meaning to some of these educational practices.

In the third place, many of the investigations of supervised study appear to represent much wasted effort, since it is unnecessary to prove the obvious. We may assume that any intelligent effort to apply generally accepted principles of

teaching will be more efficient than instruction which neglects or violates such principles. It will be noted that we are referring here rather to pupil guidance than to technique, and this fact leads us to the next general observation.

In the fourth place, relatively too much attention in educational writing and thinking has been paid to the technique of supervised study, and too little attention to pupil direction in study. . . . Pupil direction is the very heart and center of supervised study.

There may or may not be some technique which is superior to all others, whatever the circumstances. This is improbable. There may be, and probably is, some technique which is superior to all others for a given situation. And yet, granted that this technique could be discovered and instituted, we have little assurance that it would produce the most desirable results. When we concentrate on technique, we are dealing with but the externals, the *form*, and neglecting the *content*. Sound pupil direction in a poor technique is better than a good technique with faulty pupil direction. It may honestly be questioned whether any sincere and intelligent (note the adjectives) endeavor to give pupil direction ever failed of its purpose, regardless of the technique of which it was a part.

Our plea, then, is for a change in emphasis in thinking and in practice. We need to be less anxious about the type of technique which the administrator chooses for his school and more concerned with the quality of pupil direction which the teacher gives in the period of study.

THE DECLINE OF TEACHING

A vigorous statement of a serious situation which menaces the teaching profession is made by one of the ablest of the district superintendents of the New York City schools. The article from the *New York Times* which reports this statement is as follows:

Teaching is rapidly becoming a part-time job, declared District Superintendent John L. Tildsley, on behalf of the Joint Salary Committee, in an open letter to Governor Smith urging him to sign the Ricca bill, which would increase the pay of teachers.

"While part time for pupils is being eliminated, part-time teaching is becoming more and more common among the teachers of these same pupils," said Dr. Tildsley. "What avails full time for pupils if the teacher gives but a portion of his working time, his energy, his thinking and planning to the training of the pupils?"

"Recently our most able teachers of accounting were urged to take the examination for promotion to the position of chairman of a department in the high schools. Many of them declined on the ground that the \$500 extra salary was not sufficient inducement to cause them to give up their outside accounting work, the pay for which made possible the support of their families. Teaching for them has come to be known as a part-time job. Grim necessity makes it so.

"Each month the teacher's check from the city grows less able to meet the

bills. In 1913 one paid \$47.50 a month for his six-room non-elevator apartment at 152 West Ninety-first Street. Now it rents for \$100, or 109.5 per cent increase. Nearly all the other players in the game of life have been able to raise their own prices in proportion to the raise made by the other fellow.

"In 1913, if he were a high-school teacher at the maximum salary, he had \$220.83 a month to pay his bills; now he has \$308.33, or \$87.50 more, but the rent and the other outgo which cost him \$220.83 in 1913 now cost him \$382.03 (\$73.70 more than he is actually getting).

"And, as bills must be met, he takes another job after school in the afternoon and possibly another one in the evening, and the boy gets but a part of a teacher and that of a slowly dying teacher who has no time or energy for growth and self-improvement. When teachers cease to grow, they begin to die.

"Teachers with lives stunted by the losing contest with rising prices feel that they have no right to allow their own sons nor ask other people's sons to enter the occupation of teaching and so to continue the losing struggle. Men have largely disappeared from the elementary schools."

COLLEGE SPELLING

A college teacher who has classes made up of teachers-in-training writes as follows:

I was much interested in the article "Can High-School Students Spell?" which appeared in the December *School Review* because at that time I was making some discoveries about the ability of college students along that line. My class has spelled poorly from the beginning of the year. Thinking that this might be due to carelessness or hurry, I used as a spelling lesson twenty-six misspelled words collected from their written work. Of the twenty-three students taking the test, eight were Seniors; seven were Juniors; and eight were Sophomores. The results were as follows:

DISTRIBUTION OF STUDENTS ON THE BASIS OF
THE NUMBER OF WORDS MISSPELLED

Number of Words Misspelled	Men	Women	Total
0.....	1	1	2
1.....	1	.....	1
2.....	1	5	6
3.....	4	4	8
4.....	1	2	3
5.....	.....	.....	.....
6.....	1	.....	1
7.....	.....	.....	.....
8.....	.....	1	1
9.....	.....	.....	.....
10.....	1	.....	1
Total.....	10	13	23

The words used and the number of wrong spellings were as follows: specimen and despair, 11 each; artesian, 10; privileges, 7; heterogeneous, 6; truancy, 5; separate, 4; similar and changeable, 3 each; professor, environment, academies, and foregoing, 2 each; imaginative, botany, private, appearance, and curriculum, 1 each; student, abundance, self-assertion, physically, hence, tendency, divides, and naturally, 0.

Most of the misspellings were evidently due to the fact that the student was spelling according to sound without attention to derivation or to the fact that his pronunciation was careless.

Since giving the test, the following versions of the English language have been collected from the same class: "intrest," "loyalty," "fiew," "dinning-room," "lavoratory," "labratory," "ennunciate," "plain geometry," "arrouse," "rebellous," and "conglamouration."

I hope that this class is not typical of college students as a whole, but the general condition of spelling in college is serious enough to call for immediate attention.

ADULT EDUCATION THROUGH LIBRARIES

A news item issued by the American Library Association describes what is being undertaken in a number of cities to make libraries more serviceable as centers for adult education.

Adult-education service has recently been inaugurated by a number of libraries. Adult-education service gives systematic, individualized assistance to young people out of school and to others who wish to study independently and who need advice about books even before they need the books themselves.

The Indianapolis Public Library now has in operation its Readers' Adviser Service, Out-of-School Division. Two librarians, with desks near the entrance, are in charge, and they have outlined some seventy-five reading courses for almost as many individuals. Favorite courses are on short-story writing and journalism.

The Omaha Public Library now advertises the services of a readers' assistant. Pauline J. Fihe is in charge of the recently inaugurated Readers' Bureau of the Cincinnati Public Library. The Minneapolis Public Library is developing plans for an adult-education service. The Oshkosh (Wisconsin) Public Library has carefully made plans for adult-education work, beginning with a study of community needs.

Adult education has long been a library ideal. Libraries have always sought to aid students, but the organizing of the library's resources and personnel specifically for this service is a development which is only beginning to become general.

GEOGRAPHICAL AND OCCUPATIONAL DISTRIBUTION OF GRADUATES OF A RURAL HIGH SCHOOL

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What becomes of the graduates of the small-town high school? Where do they go, and what do they do? If these questions could be answered with any degree of certainty, we should have valuable guidance in solving many of the problems that the rural high school presents. That these problems deserve attention is shown by the statement in the United States Bureau of Education's Statistical Survey for 1919-20 that "of all public high schools reporting in 1920 [14,326], 85.6 per cent were rural high schools."¹ Of course, the great majority of these are small schools, but the number of children involved is great enough to make it important to know what course in life they follow after graduation.

The conventional high school has always been considered by many to be unsuited to rural conditions, giving training which does not seem to be adjusted to community needs. Efforts have consequently been made, and are still being made, better to adapt the school to the community. Yet there have been skeptics who have declared that since the rural population cannot all stay "on the land" or in the villages, there are bound to be those who will go to industrial and distributing centers and will therefore need a more general high-school training than those who stay behind. Still a third class of critics have insisted that the traditional high-school training has helped to send away those who, without it, would have stayed behind. All these questions need to be settled by statistics rather than by opinion, and such statistics are rare or, if existing, not widely known.

A little light on this question is obtained from some figures which have been gathered concerning the graduates of a small high school

¹ Florence Du Bois, *Statistical Survey of Education, 1919-20*, p. 35. Bureau of Education Bulletin No. 16, 1923.

in northern Illinois. The community is not very near any large city and seems as little influenced by closeness to a larger center as is any rural town. The high school graduated its first class in 1889, and the community since then has been static in a way typical of settled rural conditions. The census figures in Table I show how the population has remained almost stationary for thirty years.

TABLE I
POPULATION OF THE VILLAGE OVER A PERIOD
OF THIRTY YEARS AS GIVEN BY THE
UNITED STATES CENSUS

Year	Population
1890.....	516
1900.....	576
1910.....	555
1920.....	547

In this period of thirty years there has been great change in educational conditions, but, so far as numbers in high school are concerned, this community showed little change until 1910. Table II shows the number of children graduating during each of the three ten-year

TABLE II
NUMBER OF GRADUATES FROM THE VILLAGE HIGH SCHOOL BY
TEN-YEAR PERIODS

	Boys	Girls	Total
1890-99.....	20	42	62
1900-1909.....	26	40	66
1910-19.....	40	56	96

periods. It is interesting to note that the number graduating and even the relative number of boys and girls are approximately the same for the first two ten-year periods. In the third ten-year period two changes occur. First, there is almost a 50 per cent increase in the number of graduates, and, second, there is a somewhat larger percentage of boys. In 1920 the high school took a step forward in changing to a four-year course. Graduations since that time average about the number they did before but with a growing proportion of boys. This represents real progress, for the graduates since 1920 have had to spend four years instead of three years in the school.

During the years from 1889 to 1921, inclusive, a total of 235 graduated from this village high school. Of these, nine have died, leaving 226. The present addresses of these 226 graduates furnish very interesting data on what becomes of the rural high school graduates. This is not, it must be remembered, a community of transients. The village changed scarcely at all from year to year, and the children graduating from the school were all from families engaged in business or professional work in the town or in farming near the town. Table III shows how the graduating classes of thirty-two years are scattered over the United States. The divisions used are those of the United States census. The original school district and the home state of Illinois outside the school district are separated, however, from the East North Central division.

Perhaps the greatest point of interest in Table III is the percentage of graduates still in the home community—42.9 per cent. The other 57.1 per cent have gone away from the town or district which directed and paid for their education. The benefits which the school district conferred upon them are being reaped by other communities; the deficiencies of which the school district may have been guilty are being paid for by ill effects on other groups. This situation, if it is universal, certainly raises the question of the responsibility of a rural district, in the matter of education, to other communities as well as to itself. Perhaps there has been too much emphasis on local interest in the control of secondary schools if more than one-half of the graduates go elsewhere.

Almost one-third of the graduates, although outside the home district, are still within the state which had a hand in their education. This figure surely emphasizes the state's interest as well as the interest of the local district. With so much migration of rural high school graduates within the state, surely the citizens of the state should have greater concern than they now have for what is done in the village schools, which do their work with so little attention from elsewhere.

What happened to the seventy-two graduates who left the home town but remained within the state is very interesting. Twenty-four, or approximately one-third, remained in the same county, half of them going to the county seat of 4,000 population, the largest town

in the county, and the other half scattering to small villages. Of the remainder, nineteen moved to adjoining counties, and of these about

TABLE III
GEOGRAPHICAL DISTRIBUTION OF THE GRADUATES OF A SMALL ILLINOIS
HIGH SCHOOL

CLASS	SCHOOL DISTRICT	HOME STATE	DIVISION OF THE UNITED STATES									FOREIGN	TOTAL
			East North Central	West North Central	East South Central	West South Central	Mountain	Pacific	Middle Atlantic	New England	South Atlantic		
1889.....	1	1		1									3
1890.....	1												1
1891.....									1				1
1892.....	4	4	2	2			1						13
1893.....	2	4		2				2					10
1894.....								1					1
1895.....	1	3	2	2			1	1	1				11
1896.....	2	3										1	6
1897.....	1	2	2					1					6
1898.....	2	3					1	1					7
1899.....		2					1	1					3
1900.....	5	1									1		7
1901.....		1		1		1							3
1902.....	1	2											3
1903.....	3	3	1					2					9
1904.....	3	1							1				5
1905.....	5			1									6
1906.....	2			1			1	1					5
1907.....	5	2											7
1908.....	3	2	2										7
1909.....	3	3		1				3		1			11
1910.....	3	5	1				1	1					11
1911.....	6	3	1				1	1					12
1912.....	5	3		1	1								10
1913.....	5	4											9
1914.....	9	3		1									13
1915.....	4	6									1		11
1916.....	4	3							1				8
1917.....	3	1	1	1									6
1918.....	4	2											6
1919.....	4	4											8
1920*.....													
1921.....	6	1											7
Total.....	97	72	12	14	1	1	7	14	3	2	2	1	226
Percentage..	42.9	31.9	5.3	6.2	0.4	0.4	3.1	6.2	1.4	0.9	0.9	0.4	100.0

* There were no graduates in 1920 on account of the change from a three-year high school to a four-year high school.

one-half went to towns of more than 2,500 population and the rest to smaller places. Nineteen went to the "big city," which in this case

is Chicago about seventy-five miles away. The remaining ten went to other cities of the state from 50 to 150 miles away. In all, fifty-one of the seventy-two who left the home town but remained in the state went to cities.

Twenty-five per cent of the graduates have gone to other parts of the country. Migration from one section to another is a characteristic of our population in which we have rejoiced because of the national unity it affords. Its educational implication, however, has seldom been considered. The schools have taught a national patriotism that will function everywhere, but has there been emphasis on mutual understanding between different sections? Such understanding as exists may be due in large part to migration, but migration can scarcely be said to have been taken into account by the schools. If 25 per cent of the high-school graduates go to other states, as is the case with this rural school, it would seem there is an interstate educational problem which would warrant a national interest as well as a state interest in education. States resent national "interference" in education just as local districts resent state "interference," but in the light of such figures as these is this sectional jealousy justified?

Movement away from one's birthplace is a characteristic custom of the population of the United States, so much so that for a long time the United States census has recorded the place of birth of all persons and compiled statistics to show the spread into the various divisions of the United States of the persons born in each state. The question arises, therefore, whether the scattering of these rural high school graduates is any greater than the scattering in the case of the whole population. Table IV shows the figures given by the 1920 census as compared with the figures for the 226 graduates. Unfortunately, the census does not show how many born in a certain state are still living in the same division of the United States. Consequently, in the case of Illinois we can only tell whether those born in the state were, in 1920, living either in Illinois or in the neighboring states of Indiana, Ohio, Michigan, and Wisconsin. The figures for the 226 graduates were consequently arranged to correspond.

The agreement between the two columns of Table IV is certainly startling, particularly in view of the fact that the small group of 226 individuals is compared with the thousands included in the census

totals. The census figures include both rural and city populations; it is not possible, therefore, to determine the extent to which the scattering to other regions is more characteristic of city people than of country people. The figures given for the United States as a whole show that 81 per cent of the people living in rural regions in 1920 were born in the geographical division in which they were then living; 66 per cent of the urban population were born in the geographical division in which they were then living. At any rate, the percentages given in Table IV include the two groups, and with these percentages the percentages for the rural high school graduates

TABLE IV
COMPARISON OF THE GEOGRAPHICAL DISTRIBUTION OF THE
VILLAGE HIGH SCHOOL GRADUATES AND ALL PERSONS
BORN IN THE SAME STATE

Present Place of Residence	All Persons Born in Illinois	226 Graduates of the Rural High School
East North Central division.....	78.2	80.1
West North Central division.....	10.8	6.2
East South Central division.....	.5	.4
West South Central division.....	2.5	.4
Mountain division.....	2.2	3.1
Pacific division.....	3.9	6.2
Middle Atlantic division.....	1.1	1.4
New England division.....	.2	.9
South Atlantic division.....	.6	.9
Foreign.....		.4
Total.....	100.0	100.0

agree to a large extent. The most marked differences are in the West North Central and the Pacific divisions, but these are not great enough to be very significant.

The final consideration is the occupations into which the graduates of the village high school have found their way. Since the latest class considered is that of 1919, there has been time enough for decision as to occupation on the part of most boys and girls. Tables V and VI list the occupations of the graduates by the three ten-year periods so as to make it possible to discover any trend that there might be in change in occupational choice. No attempt is made to classify occupations. They are listed practically as given by the individuals in the order of decreasing frequency.

The first point of interest in Table V is the number of farmers. Of those who graduated during the first ten years, only one is now a farmer. In the next ten-year group a little less than one-half of the graduates are farmers. In the last group only two-fifths of the boys

TABLE V

PRESENT OCCUPATION OF THE BOYS GRADUATED BY A SMALL HIGH SCHOOL
DURING THIRTY YEARS

Occupation	Classes 1890-99	Classes 1900-1909	Classes 1910-19	Total
Farmer.....	1	11	15	27
Engineer.....	2	1	3	6
Student.....			4	4
Lawyer.....	2	1		3
Electrician.....		1	2	3
Druggist.....		1	2	3
Army officer.....			2	2
Assistant manager.....		2		2
Teacher.....	1	1		2
Editor.....	1	1		2
Salesman.....	1	1		2
Insurance.....	1	1		2
Clerk.....	1		1	2
Standard Oil Co.....	1		1	2
Merchant.....	1	1		2
Produce dealer.....		1	1	2
Minister.....	1			1
Dentist.....	1			1
Undertaker.....	1			1
Barber.....	1			1
Shoe repairer.....			1	1
Banker.....		1		1
Manager carpet company.....	1			1
Superintendent of schools.....		1		1
Brakeman.....			1	1
Telephone manager.....			1	1
Bookkeeper.....			1	1
Horticulturist.....			1	1
Poultry dealer.....			1	1
Miscellaneous.....	1			1
Not given.....	1			1
Total.....	19	25	37	81

are farmers, the rest scattering through a great number of occupations, a few being allied to farming but most of them completely separated from it. Of the professions, engineering and law are most common, although the late war seems to have caused two of the most recent group to enter the army. No generalizations can be made about the other occupations except that the graduates seem to have gone into almost every type of work.

No very marked trends seem to appear in the occupations of the girls except the increase in the number engaged in teaching and in business. This is to be expected from the increased demand for women in both of these kinds of work. A fact not shown by the table is that a great number of the housewives are wives of farmers. This fact is of importance in considering the kinds of domestic problems they have to meet and the sort of knowledge they should have in order to co-operate as much as possible with their husbands and in order to raise children under farm conditions.

TABLE VI
PRESENT OCCUPATION OF THE GIRLS GRADUATED BY A SMALL HIGH SCHOOL
DURING THIRTY YEARS

Occupation	Classes 1890-99	Classes 1900-1909	Classes 1910-19	Total
Housewife.....	31	28	27	86
Teacher.....	3	3	10	16
At home.....	2	3	6	11
Saleslady.....	1	1	4	6
Clerk.....		1	3	4
Telephone operator.....		1	1	2
Stenographer.....	1			1
Missionary.....	1			1
Osteopath.....	1			1
Dietitian.....	1			1
Piano student.....			1	1
Private secretary.....			1	1
Business college.....			1	1
Postmistress.....			1	1
Total.....	41	37	55	133

This showing of occupations, especially for the male graduates, emphasizes the difficulty with all vocational preparation; vocations are so numerous and the individual's choice is so uncertain that little specific training is possible. The two large occupational groups are farmer and housewife, but both of these are in a minority. For all the others, undoubtedly the best training was in the understanding of modern American life as a whole, with broad and general results in cultivation of character and habits of thinking.

SUMMARY

The data here presented show the present residence and occupation of all the graduates of a village high school in a distinctly rural

community of Illinois which for thirty years has had a population of about 550.

For twenty years, 1890 to 1909, the graduations averaged six to seven a year, the girls outnumbering the boys 2 to 1. Between 1910 and 1919, the graduations averaged nine to ten with a somewhat larger percentage of boys.

Less than one-half of the graduates remained in the home community. About half as many scattered over the county and the surrounding counties. About an equal number went to the larger cities of the same state.

The balance of the graduates, or about one-fourth, have scattered all over the United States, in almost exactly the proportions the census shows for all persons born in the state of Illinois. As the Illinois figures are based chiefly on city population, these village graduates scattered almost as much as did those born in cities.

Of the boys graduated, one-third became farmers. About one-fifth went into the professions, and almost all the rest went into business. Very few found their way into the trades.

Of the girls, about two-thirds became housewives and about one-fifth as many, teachers. In the group for the last ten-year period there was a distinct tendency to enter business.

These statistics are presented in order to suggest a line of inquiry which should give us much more dependable and useful information with regard to the needs of rural education than we as yet have.

COLLEGE-ENTRANCE CREDENTIALS FROM THE HIGH-SCHOOL POINT OF VIEW

E. A. PARTRIDGE

East High School, Rochester, New York

The office of a large high school at the close of a school year is a busy place. Records of every kind are pouring in from teachers: records of attendance and of class work, reports for the month of June, reports for the year, examination records (in a school of three thousand pupils this means at least twelve thousand marks), preliminary reports from grammar schools and junior high schools for the September registration—all of which have to be tabulated and filed or forwarded to city or state authorities. Into the midst of this rush comes the seemingly unending line of Seniors inquiring about their certificates for college entrance. For the past three years the writer has had charge of this portion of the work in the East High School of Rochester, New York.

In 1924 the East High School had a registration of 2,963. Of this number, 360 graduated in the two classes of January and June. For 276 of these 360 pupils the writer and four assistants made out, between June 23 and July 15, 309 college certificates—one each for 246 pupils, two each for 27 pupils, and three each for 3 pupils.

Before the standings could be entered on the college certificates, the standings for the final term for these 276 pupils had to be entered on the permanent record cards of the pupils. These cards contain the complete records of the pupils in all subjects taken in the high school. As each pupil was taking at least four subjects, this meant 1,104 entries, for, although the 276 pupils represent both January and June graduates, the January graduates invariably remain in school until June, either repeating subjects in which their standings were low or taking additional subjects required by the colleges they expect to enter.

The first step was to remove from the files the record cards of the 276 pupils and then the cards giving the pupils' programs by subject

and teacher for the final term. The two cards for each pupil were clipped together, and they made an imposing pile. Then the teachers' term reports (long yellow and white sheets having spaces for eighty names each) were laid out on a long table, and we went at the task, working by two's, one calling off (1) the subject, (2) the teacher's name, and (3) the pupil's name and making the entries on the permanent record card and, as a check, on the term program card, while the other looked up the proper report sheet, read off the standing, and checked each name as soon as the entry was made. We found that the quickest way was to take one subject at a time—first, all the English, then the languages, then mathematics, and so on. Please bear in mind the fact that the final examinations were given June 16 to 20, inclusive, and the teachers' reports were not due in the office until June 23. As a matter of fact, some did not come in until June 24 or 25; one teacher of two senior classes whose records we needed mailed his reports back to us from Cape Vincent, New York, whither he had gone for the summer! Also remember the warning on so many of the college certificates: "This certificate must be in the hands of the registrar not later than July 15."

We then obtained the name of the college (or colleges) which each pupil expected to enter. Early in the term this information had been secured from the pupils and entered on cards (it seemed as though each pupil had changed his mind at least twice), and the school secretary had written to the colleges concerned, asking the registrars to send the proper number of application blanks. The pupils' record cards were then distributed according to colleges, and we entered upon the next phase—the making out of the individual certificates. Last June we made out blanks for fifty-six different institutions, counting as one the "Qualifying Certificate" of the New York State Department of Education required for applicants for entrance to law, dental, medical, and normal schools and hospitals, although there were, as a matter of fact, twelve different institutions represented here. Every letter of the alphabet except J, Q, T, X, and Z was represented among the institutions. The following list includes one name beginning with each of the other letters: Amherst College, Boston Technical Institute, University of California, Dart-

mouth College, Elmira College, Fordham University, Gordon School, Harvard University, Ithaca Conservatory, Kendall Hall, Lassel Seminary, University of Michigan, New York University, Oberlin College, University of Pennsylvania, University of Rochester, Smith College, Union University, Vassar College, West Point, Yale University.

I have on the desk before me the certificates of forty-five different colleges together with a copy of the "Uniform Blank Adopted by the National Association of Secondary School Principals." Most of them are printed on white paper, but some colleges evidently want distinguishing colors. Syracuse University has white for "Business Administration," yellow for "Fine Arts," and light blue for "Applied Science." This means, of course, that we must find out from the pupil not only the college he expects to enter but also the course. The University of California uses green and yellow; the University of Buffalo, brown for "Arts and Sciences"; Case School of Applied Science, tan. All these colors are liberally sprinkled through the pile.

With regard to size, we find that there are fourteen double-page and thirty-one single-page certificates. Of the fourteen double-page certificates, there are seven different sizes, the folded blanks measuring as follows: Annapolis $9\frac{1}{2} \times 12$; Smith College, Western Reserve University, Teachers College of Columbia University, Elmira College, Oberlin College, Ohio Wesleyan University, Princeton University, and Rensselaer Polytechnic Institute, each $8\frac{1}{2} \times 11$; Russell Sage College, 8×11 ; Harvard University, $8 \times 10\frac{1}{2}$; New York State Qualifying Certificate, 8×10 ; Hamilton College, $7\frac{1}{4} \times 8\frac{1}{2}$; and Brown University, 6×9 (incidentally, the Brown University double-page certificate is accompanied by a single-page sheet, 6×9). Of the single-page certificates, twenty-two are $8\frac{1}{2} \times 11$ (ordinary typewriter size), while the remaining nine are of six different sizes, ranging from Dartmouth College, $8\frac{1}{4} \times 13\frac{3}{4}$, to Syracuse University, 8×10 . The forty-five certificates are of fourteen different sizes. Furthermore, Stanford University, the University of California, Union University, and Syracuse University have their certificates printed the short way of the paper. The University of California and Syracuse University have their certificates perforated for convenience in filing in a loose-leaf system. It is curious that all these colleges seem to have had

their own convenience in mind and not the convenience of the hundreds of high schools all over the United States whose principals, secretaries, or teachers have to make out and forward the thousands of certificates each year.

As to the arrangement of the information required, six of the forty-five colleges have apparently followed much the same form as that which appears on the blank adopted by the National Association of Secondary School Principals; that is, the subjects are listed in the following order: English, Greek, Latin, French, German, Spanish, Italian, history, mathematics, sciences, and other subjects. The vertical columns are headed: "Year Studied," "Number of Weeks," "Number of Periods a Week," "Grade," and "Remarks." Even these six blanks, however, are not uniform in the exact arrangement of subjects, headings, width of columns, or distance between lines. Of the forty-five blanks, practically no two are exactly alike, and absolutely no two are alike in the page heading where the student's name, address, and other information are required. In one certificate under the heading "Year Studied" the year is to be indicated by Roman numerals: I, II, III, IV. Another certificate states: "In the column 'Year Studied' the academic year should be given, e.g., 1922-23"; and the column in which these figures are to be entered is five-sixteenths of an inch wide. On the Union College blank, the worst of them all, the lines are exactly one-eighth of an inch apart—eight lines to the inch! A number of the blanks call for "Textbook" and "Ground Covered in Textbook"; one blank allows five-eighths of an inch for the name of the book and one inch for the ground covered. Anyone who has tried it knows that it is quite impossible to write "Hawkes, Luby, and Touton" (algebra) in a space five-eighths of an inch wide. Furthermore, in this day of changing textbooks one would need to have before him a list of all the books used in the school during the previous five years. If the reader, with four assistants, were sitting down to make out credentials for 276 pupils (309 blanks in all), how would he like to enter for each pupil the names of all the books used and the ground covered in each book during a four- or five-year course, and does he think that, if he started June 25, he could finish the work so that the colleges could have the records by July 15?

Nearly every college now calls for the rank of the pupil in his class in one of three forms: "He is in the $\left\{ \begin{array}{l} \text{upper} \\ \text{middle} \\ \text{lower} \end{array} \right.$ third of his class."

"He is in the _____ quarter of his class." "He stood _____ in a class of _____." Did the reader ever attempt to work out the rank in class of 276 pupils when the graduating classes of January and June numbered 134 and 226, respectively, and when part of the marks were numerical (Regents examinations in New York State) and part were letter ratings which had to be reduced to a numerical basis before they could be averaged?

An increasing number of colleges are asking for personal information concerning each prospective Freshman. The following is a sample of one of the simplest forms:

Brown University is making a careful study of the qualifications of each applicant for admission. It is desired to obtain information concerning his intellectual attainments, his character, and his place in the life of the school. The following questions are designed to secure this information:

Name of student _____

School _____

Rank in the graduating class (1, 2, 3, 4, etc.) _____

Number of graduates in the class _____

Was he a member of any school organizations? _____

Which? _____

Had he any pronounced interests? _____

What? _____

If any of the following qualities apply to him, underline that one which does: lazy, indifferent, immature. Brief statement as to why, and in what particulars, the applicant is (or is not) regarded as thoroughly qualified for successful college work. _____

How can the principal of a school with 2,963 pupils, a principal who never comes in contact with the pupils in the classroom, a busy man who spends much of his time with the parents of recalcitrant pupils, settles problems of discipline, is interviewed by reporters, has a pile of new mail put on his desk twice a day, has a secretary and two clerks to direct, is interrupted by telephone calls, secures substitutes for the teachers who are ill, who hardly moves from his office from eight in the morning until five in the afternoon—how can such a man possibly take the time to answer such questions as these?

It was said at the beginning that we made out 309 certificates in June, 1924. Needless to say, many of the applications were rejected, and during the summer (the East High School office is open all summer) one after another of the rejected applicants, usually dejected but hopeful, came in to ask for credentials for other colleges. We have made out as many as five for one pupil who hoped to gain entrance somewhere. We are now putting a note at the bottom of the applications for "repeaters": "This student has previously applied for admission and been rejected by _____." Of these extra blanks, no accurate record was kept, but it is perfectly safe to say that during the course of the year 1924 a minimum of five hundred certificates went to various institutions from our office.

Why is it not possible for the colleges to consult the convenience of the secondary schools and adopt a simple uniform blank, such as that adopted by the National Association of Secondary School Principals? The writer has even made the radical suggestion that next June we obtain a sufficient supply of these blanks for all our applicants and send them to the colleges, ignoring entirely the blanks they furnish.

Summed up, the objections to the present college certificates are as follows: lack of standard form, making it necessary last year for us to send to fifty-six different institutions for their particular blanks; lack of uniformity in form and size, making handling more difficult; lack of uniformity in arrangement, increasing the possibility of mistakes in recording marks; lack of uniformity in column headings, again leading to mistakes; insufficient space in certain columns for the information called for; insufficient space between lines in some cases; too much information requested with regard to the personality of students.

For the benefit of those who are not familiar with the uniform blank referred to, the writer suggests that copies may be secured from H. V. Church, secretary of the National Association of Secondary School Principals, J. Sterling Morton High School, Cicero, Illinois. It is the writer's hope that he and his fellow-sufferers from Maine to California may some day have relief from the multiplicity of colors, sizes, and arrangements of the present college-entrance credentials.

MAPS IN FORTY-FOUR TEXTBOOKS IN AMERICAN HISTORY FOR THE JUNIOR HIGH SCHOOL GRADES

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In the present scramble for new curriculum materials a number of sources are being examined in an effort to get some inkling of the sort of material that a modern curriculum for the junior high school ought to contain. Social needs, current literature, courses of study, present practices in certain well-established junior high schools, and textbooks in various fields are all being diligently studied for suggestions of value in determining curriculum content. The study here reported is in the last-mentioned class. It was undertaken to determine the present textbook status of one phase of historical content for the junior high school grades, this one phase being what some persons call the geographical factors or phases of history.

The close relation between historical events and certain geographical factors has long been recognized. The influence of climate, soil, rivers, mountains, plains, and the like on significant historical happenings has been pointed out again and again both by geographers and by historians. In view of this generally recognized close relation between the physical features of a country and its history, as well as the prime importance of place-location in history, one has reason to expect a great deal of attention to the geographical phases of the subject on the part of writers of textbooks for boys and girls in the junior high school grades. The extent and general character of the attention that forty-four textbooks in American history for these grades actually give to geographical factors in the form of maps are portrayed in the discussion and tables that follow.

In all the books there are black-and-white maps, and in all but two there are colored maps. The black-and-white maps in every book outnumber the colored ones, undoubtedly because of the expense involved in making the latter. The forty-two books containing colored maps have an average of nine, the highest number in a single

book being seventeen and the lowest two. Sixteen of the texts have more than ten colored maps. There is a total of 392 colored maps in the forty-two texts. On an average, there are forty-one black-and-white maps in each book, the total in all books being 1,823. Sixteen of the texts contain more than forty-five black-and-white maps.

COLORED MAPS

Most of the colored maps are a full page in size. Now and then a half-page map appears, and rather frequently one of two pages in size. Table I contains the title of each map of these three sizes appearing in more than one of the texts and the frequency of appearance.

The following are the titles of the colored maps two pages in size which appear in one text each: "The South's First Line of Defenses," "Territorial Changes in Europe after the World-War," "Successive Stages of the Settlement of the Mississippi Valley and the Southern Plains," "Westward Movement (1820-1835)," "The Present Area of the United States as It Was in 1650," and "The War of 1812."

The titles of the colored maps one page in size which appear in one text each are: "Colonial Grants," "Middle Colonies in 1750," "The Southern Colonies in 1750," "The New England Colonies in 1750," "The English Colonies in 1700," "Early Voyages to America," "Europe in the Middle of the 16th Century," "Regional Map of the United States Showing Chief Land Products," "Physical Map of the United States," "Home of Races," "Medieval Trade Routes," "Acquisition of the Far West (1845-1850)," "North America," "Europe in 1921," "The Western Front" (world-war), "Latin America," "Physical Map of North America," "Porto Rico," "Philippine Islands," "Hawaiian Islands," "Alaska," "United States in 1890," "Far West and Pacific Coast in 1890," "Virginia Campaigns of Civil War," "Western Campaigns of Civil War," "Territory Claimed by Texas in 1845," "Transportation in the United States in 1850," "Opening of the West (1815-1830)," "States Admitted to 1812," "North America in 1763," "Colonial Trade and Commerce (1689-1775)," "Allied Counter-Offensives in Europe," "American Dominion in the Pacific," "The West Indies in 1655," and "The West in 1860, in 1870, and in 1907."

Two colored maps one-half page in size appear in one text each:

TABLE I

DISTRIBUTION OF 349 COLORED MAPS IN FORTY-TWO TEXTBOOKS IN
AMERICAN HISTORY FOR THE JUNIOR HIGH SCHOOL GRADES

TITLE OF MAP	SIZE			TOTAL
	2 Pages	1 Page	1/2 Page	
Territorial Expansion of the United States.....	24	7	.....	31
Colonial Claims in 1783.....	5	21	1	27
United States and Its Possessions.....	14	8	.....	22
United States in 1861.....	5	16	.....	21
United States around 1912.....	10	10	.....	20
United States in 1803.....	.....	18	.....	18
Free and Slave States on Eve of Civil War.....	3	13	.....	16
English, French, and Spanish Possessions in America, 1750.....	.....	10	6	16
Territory Involved in the Civil War.....	8	5	.....	13
Spanish and English Possessions after 1763.....	.....	5	7	12
Revolutionary-War Territory in Eastern and Middle States.....	.....	10	.....	10
North America after the Treaty of 1783.....	.....	10	.....	10
Distribution of Indian Tribes.....	.....	10	.....	10
Revolutionary-War Territory in the South.....	.....	9	.....	9
English Colonies and French Claims in 1754.....	4	4	1	9
United States in 1802.....	.....	7	.....	7
United States in 1821.....	.....	7	.....	7
English, French, and Spanish Possessions in America, 1650.....	.....	5	1	6
United States in 1825.....	4	1	.....	5
United States in 1830.....	.....	5	.....	5
United States in 1850.....	1	3	1	5
United States in 1854.....	.....	3	2	5
Territory Acquired from Mexico.....	.....	5	.....	5
Industries of the United States.....	2	3	.....	5
Territorial Acquisitions, 1783-1853.....	.....	4	.....	4
Railway Combinations, 1910.....	.....	4	.....	4
The Colonies at the Outbreak of the Revolution.....	.....	4	.....	4
French Explorations and Posts.....	1	3	.....	4
British Dominion in North America in 1763.....	.....	3	.....	3
United States in 1792.....	.....	3	.....	3
Oregon Boundary Disputes.....	.....	3	.....	3
Changes in Slave and Free Territory, 1820-1850.....	.....	3	.....	3
Dependencies of the United States.....	.....	3	.....	3
Caribbean Region.....	.....	3	.....	3
Physical Map of the United States and Indian Tribes..	2	1	.....	3
Four Periods of Atlantic-Coast Development.....	1	1	.....	2
Routes of the Explorers.....	1	1	.....	2
Our Newest States with Dates of Admission.....	1	1	.....	2
United States in 1870.....	.....	2	.....	2
The Compromise of 1850.....	.....	1	1	2
Transportation in the United States in 1850.....	.....	2	.....	2
Areas of Freedom and Slavery—1820.....	.....	1	1	2
The Northwest Territory—1787.....	.....	2	.....	2
The Colonies during the Revolution.....	.....	2	.....	2
Total.....	86	242	21	349

"The United States in 1840" and "Colonial Governments as Distinguished in 1682, in 1692, and in 1730."

Inasmuch as colored maps are much more expensive than black-and-white maps, it would seem that the historical features placed on them ought to be of greater moment than those placed on the black-and-white maps. Judging from the number of two-page maps portraying the territorial expansion of the United States, we find textbook writers very much of one mind as to the importance of this phase of our history. When one adds to the twenty-four two-page maps seven one-page maps, four showing territorial acquisitions between 1783 and 1853 and three showing dependencies of the United States, the importance of our territorial acquisitions in the minds of textbook writers becomes evident.

To show the political boundaries of the United States at various dates is also considered important by textbook writers. The dates "1783," "1803," "1861," and "around 1912" are the times selected by most of them to show the United States. The other dates selected by varying numbers of authors are: 1802, 1821, 1825, 1830, 1850, 1854, 1792, and 1870. The first six of these seem to be of about equal importance; the first two appear seven times each and the others five times each.

Other features of our history receiving a great deal of colored-map emphasis in the forty-two texts are the slavery question, the Indians, possessions of the United States, the claims of the several colonies to western lands, the claims of European countries in the New World, the colonies during the Revolution, and the United States during the Civil War. The physical features are especially emphasized in three texts and certain industrial and economic phases of our history in four texts. The long list of colored maps appearing but one time each is evidence of the indecision now existing among writers of texts in this field with reference to the sort of historical geography of sufficient importance to be placed on colored maps.

BLACK-AND-WHITE MAPS

Since the black-and-white maps readily fall into certain chronological periods of our history, they are presented in tabular form according to these periods. All those pertaining to our history prior to

1607 are placed in one table and those pertaining to the period beginning with 1607 and ending with 1763 in another table; separate tables are also provided for the period from 1763 to 1789, the period from 1789 to 1829, the period from 1829 to 1865, and the period since 1865. There are a few progressive maps that cannot be classified as belonging in any of these periods. These are not included in the tables.

Table II lists the black-and-white maps which pertain to the period of our history prior to 1607. The four sizes indicated in the table are not equal in exactness. The one-page maps and the one-half page maps remain constant in size, while the maps less than one-half page in size and the maps more than one-half page but less than one page in size vary. The maps which vary most in size are at the same time greatest in number, smallest in size, and probably lowest in the scale of value of any of the sizes. It may be worth while to show "The Coast of Virginia in the Time of Raleigh," the "Routes of Drake and Magellan," "The Four Voyages of Columbus," the "Plymouth and London Grants," and many other historical events of equal importance on a map of less than one-half page in size; the reduction necessary in maps of this size, however, is likely to defeat the end for which they are intended. All such maps face the danger of giving wrong conceptions, which are probably worse than no conceptions at all. The too liberal use of small maps to show important historical events is, in the writer's opinion, one of the besetting sins of present-day writers of textbooks of the type included in this study.

Maps smaller than one-half page in size appearing in one text each are: "English Explorations," "The New World after the Discoveries of Columbus and Balboa," "Mercator's Map (1541)," "The Sloane Manuscript Map (1530)," "Maiollo Map (1527)," "Mediterranean Sea," "The World as Known to Europeans in 1400," "The Crusades," "The Ancient World," "The First Settlements in the South (Florida and Port Royal)," and "The Supposed Extent of North America in 1600." "The Known World in 1500" and "Atlantic Discoveries" are maps one-half page in size which appear in one text each.

Table III shows that the settlements in the northern, middle, and southern sections of the Atlantic Coast Plain received the most attention in the black-and-white maps covering the period between

1607 and 1763, there being maps for the first of these regions in twenty-seven of the books; for the second, in thirty of the books; and

TABLE II

DISTRIBUTION OF 237 BLACK-AND-WHITE MAPS COVERING THE PERIOD PRIOR TO 1607 IN FORTY-FOUR TEXTBOOKS IN AMERICAN HISTORY FOR THE JUNIOR HIGH SCHOOL GRADES

TITLE OF MAP	SIZE*				TOTAL
	A	B	C	D	
Eastern Trade Routes.....	3	2	10	13	28
Plymouth and London Grants.....		4	2	15	21
English and Spanish Voyages of Discovery.....	12	4	2	2	20
The World as Known to Columbus.....	1		7	11	19
Routes of Spanish Explorers.....	3	2	7	5	17
The Four Voyages of Columbus.....	1	1	2	10	14
The Toscanelli Map, 1474.....			1	13	14
Location of Indian Tribes.....	4	2	3	3	12
Routes of Drake and Magellan.....	2	1		8	11
Line of Demarcation.....	1		2	5	8
First Voyage of Columbus.....			2	5	7
The Expeditions of DeSoto and Coronado.....			1	5	6
Lands Touched by Columbus.....			1	4	5
Relief Map of United States.....	4			1	5
The Coast of Virginia in the Time of Raleigh.....				5	5
Spanish Claims.....				4	4
Acadia and the Atlantic Coast.....		1		3	4
The Norsemen in America.....			1	3	4
Routes of Explorers and Discoverers.....	2	1			3
The DaVinci Map (1515 or 1516).....			1	2	3
Sketches from Behaim's Globe.....			1	2	3
Relief Map of North America.....	3				3
French Claims.....				3	3
English Claims.....				3	3
Vasco da Gama's Route around Africa.....	1			2	3
The New World according to a Map-Maker of 1540.....			1	1	2
The World as Columbus Believed It to Be.....				2	2
Explorations of Vesputius.....				2	2
Explorations of the Cabots.....				2	2
Voyages of Cartier.....				2	2
The American Portion of Waldseemüller's Map.....	1	1			2
Total.....	38	19	44	136	237

* A=one page; B=smaller than one page and larger than one-half page; C=one-half page; D=smaller than one-half page.

for the last, in nineteen of the books. The large number of maps appearing in but one text each is indicative of the uncertainty existing among textbook writers relative to the historical features of the period of our history between 1607 and 1763 that are of sufficient

importance to be shown on a map. The following maps one page in size appear in one text each: "Western Hemisphere, by Henry Hon-

TABLE III

DISTRIBUTION OF 324 BLACK-AND-WHITE MAPS COVERING THE PERIOD 1607-1763
IN FORTY-FOUR TEXTBOOKS IN AMERICAN HISTORY FOR
THE JUNIOR HIGH SCHOOL GRADES

TITLE OF MAP	SIZE*				TOTAL
	A	B	C	D	
Settlements in the Middle Colonies.....		3	3	24	30
Early Settlements in New England.....	2	10	8	7	27
Virginia Coast and Chesapeake Bay.....	2	1		16	19
Chain of French Forts.....	2	8	3	4	17
Route of Braddock's Expedition.....		2	1	12	15
Virginia in 1609.....		2		12	14
Beginnings of the Battle for Supremacy.....	3		4	6	13
French and Indian War Territory.....	2	2	2	7	13
Early Settlements in Carolina and Georgia.....	1	1	1	9	12
Southern Atlantic Coast.....	1	1	1	8	11
Quebec.....				11	11
New Netherlands in 1655.....				11	11
Early Settlements in East and West Jersey.....			1	8	9
Early Settlements in Maryland.....			1	7	8
Settlements in the Connecticut Valley.....				8	8
America at Close of French and Indian War.....	2		1	5	8
New England Coast.....		1	1	5	7
New York and Vicinity.....	1		1	5	7
Jamestown and Vicinity.....				7	7
Acadia.....				6	6
Carolina as Enlarged by King in 1665.....				6	6
Country around Narragansett Bay.....				6	6
Plymouth Harbor.....				5	5
Province Ruled over by Andros.....				5	5
French in Ohio Valley.....			1	4	5
European Colonies about 1650.....	1	2	2		5
Pilgrims in England and Holland.....			1	3	4
John Smith's Map of New England.....	2	1	1		4
Five Nations of the Iroquois.....				4	4
Country around Massachusetts Bay.....				3	3
French and Indian War (North Central Division).....	1	1		1	3
French and Indian War (Northwest Division).....		1	1	1	3
British, Spanish, and French Possessions in 1730.....		1	1	1	3
Virginia under the Grant of 1606.....				3	3
Portages in New France and Illinois.....	1		1		2
French and Indian War (Southwest Division).....	1			1	2
Hudson River and Lake Champlain.....				2	2
Great Lakes Route of French to Mississippi.....				2	2
Mason and Dixon Line.....				2	2
Settlements and Settled Areas in 1660.....	1	1			2
Total.....	23	38	36	227	324

* A=one page; B=smaller than one page and larger than one-half page; C=one-half page; D=smaller than one-half page.

dius, 1630," "Joliet's Map of New France," "The Colonies in 1740," "First Settlements Made on Eastern Coast of North America," "The Southern Colonies Just before the French and Indian War," "The Middle Colonies Just before the French and Indian War," "Frontier Line in 1700," and "Frontier Line in 1740." The maps smaller than one-half page in size appearing in one text each are: "Rhode Island and Connecticut," "Charleston Harbor," "Where the German and Scotch Irish Settled," "Settlements in Georgia," "Beginnings of the Westward Movement," "The French Frontier in the North," "James River and Early Virginia Counties," "Settlements around Boston," "Region Disputed by French and English," "Gateways through the Appalachians," "Hartford in the 17th Century," "Principal English Grants, 1606-1665," "Relief Map of Northeastern Colonies," "Relief Map of Southern Colonies," "French Ports between Lake Ontario and Ohio," "Land Held by Kiliaen van Rensselaer," "Development of Georgia," and "Maine and New Hampshire." There are also five maps one-half page in size which appear in one text each: "Atlantic Settlements," "The British Colonies in 1760," "North America in 1750," "Outline Map of Eastern North America and the West Indies," "Franquelin's Map of Louisiana Drawn in 1684."

Table IV shows the black-and-white maps in the forty-four books covering the period between 1763 and 1789. A mere glance at this table reveals the fact that most of the maps relate to the Revolutionary War—twenty-seven of a total of thirty-seven. "Boston and Vicinity," "Southern Campaign—Revolutionary War," "Burgoyne's Invasion," and "Clark's Expedition" appear in one-half or more of the books, "Boston and Vicinity" leading with thirty-seven frequencies. The "Northwest Territory," "Boone's Trail," "British Territory in 1763," and "Colonial Claims" lead in the non-war maps. No one of these non-war maps, however, appears in more than one-fourth of the books. If the black-and-white maps used by the authors of the forty-four books to visualize the historical events they describe are taken as the basis of judgment, the Revolutionary War is the only thing of much consequence during the twenty-five years following 1763.

The need for showing the events of the War of 1812 is not keenly

felt by the authors of the books under investigation. Of a total of forty-four different maps in the chronological period between 1789

TABLE IV

DISTRIBUTION OF 279 BLACK-AND-WHITE MAPS COVERING THE PERIOD 1763-89
IN FORTY-FOUR TEXTBOOKS IN AMERICAN HISTORY FOR
THE JUNIOR HIGH SCHOOL GRADES

TITLE OF MAP	SIZE*				TOTAL
	A	B	C	D	
Boston and Vicinity.....		1	2	34	37
Southern Campaign—Revolutionary War.....	6	10	2	10	28
Burgoyne's Invasion.....	2	3		17	22
George Rogers Clark's Expedition.....		2	6	14	22
Washington's Retreat across New Jersey.....	1	2	6	9	18
Yorktown and Vicinity.....				17	17
Campaigns of 1776 (New York and Philadelphia)	2	5	6	4	17
Philadelphia and Vicinity.....		1	1	10	12
Boone's Trail and Other Trails to Illinois Country.....		2	3	6	11
Northwest Territory, 1787.....		5	1	5	11
British Territory in 1763.....		3	3	4	10
New York and Vicinity.....		2	2	5	9
Colonial Claims.....	3	4	1		8
Invasion of Canada, 1775.....	1	1		5	7
Revolutionary War.....	3	1	2		6
Charleston Peninsula and Bunker Hill.....				5	5
British Empire in 1775 (Eastern United States).....	2		2		4
North America, 1783.....	2			1	3
Frontier just after the Revolution (Eastern United States).....	1			2	3
Atlantic Coast, 1775.....	2			1	3
Siege of South Carolina.....				2	2
Battle of Long Island.....				2	2
Washington's March to Yorktown.....				2	2
Boston Harbor.....				2	2
Campaigns in the West (Revolutionary War).....			2		2
War in the South and in the Northwest Territory.....	1	1			2
Colonies and Quebec, 1775, after Quebec Act.....		1	1		2
Distribution of Population in the United States in 1783.....		1		1	2
Boundaries Made by Treaty of Paris (Eastern Half of United States).....	1	1			2
Wyoming Valley.....				1	1
Coast of Carolina.....				1	1
Florida, 1763-1783.....				1	1
Election of 1789.....				1	1
John Paul Jones in British Waters.....				1	1
Main Movements of the British Troops.....		1			1
Seat of the War in the West, 1775-1783.....		1			1
Region of Large Plantations and Slave Population, 1775.....			1		1
Total.....	27	48	41	163	279

* A—one page; B—smaller than one page and larger than one-half page; C—one-half page; D—smaller than one-half page.

and 1829, but nine portray events connected with the War of 1812. Table V clearly shows that phases of our country's history other than war come to the front after 1789. For example, note in the table the frequencies of such titles as the "Lewis and Clark Expedition," "Cumberland and National Road," "Erie Canal," "United States in 1820," and "Western Expansion." One should not, however, magnify this seeming attention to exploring expeditions and the building of roads and canals, since forty-six of a total of fifty-seven maps devoted to these features are less than one-half page in size. The conception that a pupil gets from a map of the Lewis and Clark expedition from a map less than one-half page in size is likely to be wholly inadequate and painfully misleading.

Eighty-one separate black-and-white maps appear in the forty-four texts for the chronological period 1829-65. This is the largest number for any period of similar length. Fifty-four of the eighty-one maps appear in two or more of the books. Forty-nine of these are listed in Table VI. The maps smaller than one-half page in size which appear in but one book each are: "Election of 1840," "Election of 1852," "Election of 1864," "Electoral Vote in 1832," "Settled Area in 1840," "Upper Mississippi and Great Lakes," "Confederate First and Second Line of Defense," "Campaign of General Taylor," "New Orleans and Vicinity," "United States in 1848," "United States in 1853," "Antietam from a War-Time Sketch," "Location of New Factories," "Scott's March to Mexico," "Distribution of Population in 1830," "Harpers Ferry and Vicinity," "Kansas in 1855," and "How the House of Representatives Voted on the Tariff of 1832." The following maps are smaller than one page and larger than one-half page in size: "Confederate Line of Defense in the West, April, 1862," "Virginia at Four Different Stages of the Civil War," "Grant's Overland Campaign," "Virginia at the Close of 1864," and "Historical Sketch of the Civil War." The one-page maps which appear in one text each are: "The Mexican War," "Missions and Chapels of California," and "The United States during the Civil War." A map entitled "Position of Armies in 1863 in Virginia," one-half page in size, appears in one of the books. Besides the foregoing, there are five maps smaller than one-half page in size appearing in two texts each: "Washington and Vicinity," "Early California," "Electoral

TABLE V
DISTRIBUTION OF 221 BLACK-AND-WHITE MAPS COVERING THE PERIOD 1789-1829
IN FORTY-FOUR TEXTBOOKS IN AMERICAN HISTORY FOR
THE JUNIOR HIGH SCHOOL GRADES

TITLE OF MAP	SIZE*				TOTAL
	A	B	C	D	
Lewis and Clark Expedition.....		3	4	15	22
Cumberland and National Road.....		1		20	21
War of 1812 (Eastern Half of the United States)	6	6	4	4	20
United States in 1820, Showing Missouri Com-					
promise.....	4		8	5	17
Great Lakes in War of 1812.....		2	2	11	15
Erie Canal.....		2	1	11	14
British Attack on Baltimore and Washington...			1	11	12
Western Expansion and Era of Settlement, 1790-					
1800.....	1	2	1	6	10
Louisiana Purchase.....	2		2	3	7
New Orleans and West Florida.....				7	7
Creek Uprising in Alabama in 1814.....			1	5	6
Effects of Missouri Compromise in Louisiana					
Purchase.....				6	6
Events around Lake Erie, 1813.....			1	4	5
Jackson's Campaign in the South.....	1		1	3	5
Transportation Competition for Western Trade.....		2	2		4
Electoral Vote for President in 1824.....				4	4
Niagara Frontier.....		1		3	4
United States after 1803.....	2			1	3
Battle of Tippecanoe.....				3	3
Florida, 1810-1819.....				3	3
District of Ohio.....				3	3
Adoption of Manhood Suffrage.....			1	1	2
Settled Territory in 1810.....				2	2
Electoral Vote in 1800.....				2	2
Pike's Route.....				2	2
Lake Champlain (1814).....				2	2
Regions of Cotton-growing and Manufacturing...				2	2
Routes from Philadelphia and Virginia to Pitts-					
burgh and the Ohio.....	1			1	2
Vote of House of Representatives on Tariff of 1816				1	1
Original District of Columbia.....				1	1
Distribution of Population in 1790.....		1			1
Northwest Territory after Wayne's Victory.....				1	1
Europe at the Height of Napoleon's Power.....			1		1
Land Purchases and Reserves in Ohio, 1800.....				1	1
Relief Map—Eastern Half of the United States.	1				1
Southern Boundary of the United States in 1795				1	1
Scene of Indian Wars in Ohio, 1790-1795.....				1	1
United States in 1810.....				1	1
Development of Northwest Territory, 1790-1810		1			1
Florida Boundary in 1818.....				1	1
Ohio, Indiana, and Illinois.....				1	1
Territory Ceded by Treaty of Greenville.....				1	1
Vote of House of Representatives in Election of				1	1
1825.....					
United States in 1828.....	1				1
Total.....	19	21	30	151	221

* A—one page; B—smaller than one page and larger than one-half page; C—one-half page; D—smaller than one-half page.

TABLE VI

DISTRIBUTION OF 421 BLACK-AND-WHITE MAPS COVERING THE PERIOD 1829-65
IN FORTY-FOUR TEXTBOOKS IN AMERICAN HISTORY FOR
THE JUNIOR HIGH SCHOOL GRADES

TITLE OF MAP	SIZE*				TOTAL
	A	B	C	D	
Campaigns in the West (Civil War).....	4	3	11	14	32
Campaigns in Virginia (Civil War).....	4	12	3	7	26
Advance toward Mexico (Mexican War).....	2	8	4	10	24
Disputed Mexican Territory.....	2	9	1	10	22
Vicksburg Campaign.....			5	17	22
Gettysburg and Vicinity.....		3	2	16	21
Charleston Bay and Fort Sumter.....			1	17	18
Oregon Country.....		1	3	14	18
Trails to California and West (1849-68).....	2	3	10	1	16
Peninsular Campaign.....		2	3	9	14
Chattanooga to Atlanta.....		1	1	12	14
Capture of Atlanta and Sherman's March.....		1	3	10	14
Acquisition of Territory (1845-53).....	2	5	5		12
Kansas-Nebraska Territory.....	1	1		9	11
Compromise of 1850 and Kansas-Nebraska Act.....	3	1	2	5	11
Sherman's March North.....		1	1	8	10
Campaigns in the East.....	4	4	1	1	10
Lee's First Invasion of the North, 1862.....		2		7	9
Bull Run and Manassas.....				8	8
Railroads in the Northern States in 1860.....	1	5		1	7
Hampton Roads.....			4	2	6
Slave Area and Free, 1858.....	3		2	1	6
Last Battles around Richmond.....				6	6
Blockaded Southern Coast.....			1	5	6
The Wilderness District.....			1	5	6
Confederate Line in West, January, 1862, to January, 1864.....			1	4	5
How States Voted for President in 1860.....			1	3	4
Battles of Red River Expedition, 1864.....	1	1	2		4
Republic of Texas.....				4	4
Chickamauga and Lookout Mountain.....	1	2		1	4
Confederate Line in West, January, 1862.....	1	1	2		4
Territory Occupied by the Confederate Armies in West, Close of 1862.....		1	2	1	4
Lee's Second Invasion of the North.....			1	2	3
Confederate Line in West, Close of 1862.....		1	1	1	3
Military Movements in Missouri (Civil War).....				3	3
Disputed Boundary of Maine.....				3	3
Railroads and Navigable Streams of South, 1861.....	1	1	1		3
Election of 1856.....				3	3
Field of Confederacy, 1861.....			3		3
United States in 1860.....	2			1	3
Density of Population in 1860.....			1	2	3
Atlanta to Nashville.....		1		1	2
Field of Civil War.....	1			1	2
Kentucky and Tennessee.....		1		1	2
Second Battle of Bull Run.....			1	1	2

* A=one page; B=smaller than one page and larger than one-half page; C=one-half page; D=smaller than one-half page.

TABLE VI—Continued

TITLE OF MAP	SIZE				TOTAL
	A	B	C	D	
Seven Days' Battle .....	.....	I	.....	I	2
Confederacy in Spring of 1865 .....	.....	.....	I	I	2
Confederacy at Close of 1864 .....	.....	.....	I	I	2
Trails, Fur Regions, Trading in West	I	.....	I	.....	2
Total	36	72	83	230	421

Vote in 1844," "Electoral Vote in 1848," and "Down the Mississippi (Civil War)."

The large number of maps for the period 1829-65 is due to the common custom of devoting much attention to the Civil War in the allotment of map space. As already mentioned, counting the maps appearing in but a single text, there are eighty-one individual maps for this period in the forty-four books. These appear 458 times in the aggregate. Forty-five of the total number of individual maps and 310 of the aggregate number of maps are devoted to events connected with the Civil War. It is difficult to overemphasize the importance of this fact in view of the recent claims of the advocates of visual education. One might well ask the question: Do the present textbooks in American history for the junior high school grades give children impressions of events in the same proportion that the authors use the visual appeal in presenting these events?

A total of eighty-one different black-and-white maps appear in the forty-four books for the period since 1865, forty-two of this number appearing in but one text each. Maps showing our recently acquired territory predominate in the aggregate number. Reference to Table VII reveals the fact that maps of the Philippine Islands, Porto Rico, the Virgin Islands, and the Hawaiian Islands appear again and again in the combined list of books.

There is less agreement among the authors on the maps for the period since 1865 than for any other period of our history. But ten of the eighty-one maps in all of the books appear in five or more of the books. Table VII contains those appearing in two or more books. The maps smaller than one-half page in size found in but one book each are: "Center of Manufacturing and Population," "Election

TABLE VII

DISTRIBUTION OF 192 BLACK-AND-WHITE MAPS COVERING THE PERIOD SINCE
1865 IN FORTY-FOUR TEXTBOOKS IN AMERICAN HISTORY FOR
THE JUNIOR HIGH SCHOOL GRADES

TITLE OF MAP	SIZE*				TOTAL
	A	B	C	D	
Philippine Islands.....	3	2	2	18	25
West Indies, Cuba, Porto Rico, and the Virgin Islands.....			6	15	21
Panama and Canal Zone.....	1		1	17	19
Santiago de Cuba and Vicinity.....				12	12
Western Front (World-War).....	1	5	2	1	9
Hawaiian Islands.....				8	8
The World Showing United States and Its Possessions.....	4		1	2	7
Alaska.....				6	6
Transcontinental Railroad Lines.....	3		1	1	5
Manila Bay.....		1		4	5
The Election of 1876.....				4	4
Where the Americans Fought (World-War).....			3	1	4
Forest Reservations.....	1	1	1		3
Standard Time in the United States.....	1			2	3
Berlin-Bagdad Railway.....	1	1		1	3
Women Suffrage in the United States.....			1	2	3
Five Great German Offensives, 1918.....		1	2		3
Coal Deposits of the United States.....			1	2	3
Irrigation Projects and Principal Pacific Railroads.....		2		1	3
Routes Passing through the Panama Canal.....			2	1	3
Porto Rico.....				3	3
Federal Reserve Bank Districts.....			2	1	3
Eastern Front (World-War).....	3				3
The Election of 1896.....				3	3
How the United States Voted for President in 1916.....			1	2	3
United States, Canada, and Mexico.....	1	1			2
Relief Map of Panama Canal.....	1		1		2
Distribution of Immigrants in United States in 1910.....			1	1	2
Wet and Dry Map of United States, 1918.....	1		1		2
Settled Area of United States, 1880.....				2	2
Settled Area of United States, 1900.....				2	2
The Fall Line.....				2	2
Election of 1892.....				2	2
Italian Front (World-War).....			1	1	2
Battle of St. Mihiel.....			1	1	2
Battle of the Meuse-Argonne.....		2			2
Growth of Settled Area from 1870 to 1910.....				2	2
Percentage of Negro Population in Eastern States, 1860.....			1	1	2
Railroad Map in 1918.....	2				2
Total.....	23	16	32	121	192

* A=one page; B=smaller than one page and larger than one-half page; C=one-half page; D=smaller than one-half page.

of 1880," "Railroads West of the Mississippi in 1884," "Alaska Compared with the United States," "Russian Ports in Alaska before 1867," "Military Districts for the Government of the South," "Samoan Islands," "Venezuela Boundary Dispute," "The First Pacific Railway," "The Distribution of Races in the Balkans," "How Prussia Became Supreme in Germany," "Barrier in the Balkans to Pan-German Schemes," "The Electoral Vote of 1912," "Cradle of the World-War," "Asiatic Campaign," "The Electoral Vote of 1920," "Peary's Route to the Pole," "Wheat Map of the United States," "A Trunk Railway Line," "Production Area of Cotton," "Tobacco and Sugar," "Production Area of Live Stock," "Wheat and Corn," "Production Area of Coal," "Iron and Manufacturing," "Submarine War Zone," "Percentage Distribution of Population in 1910," "The United States in the Caribbean," and "Percentage of Foreign-Born in the United States." The following maps are one page in size: "Blockade Zone and Ship Lanes, 1918," "Transportation Routes, Telegraph Lines, and Cables of the World, 1920," "Products of the United States," "Immigration and New Citizenship," "Pan-German Plan for Control from North Sea to Persia," and "Distribution of Population, 1910." Four maps one-half page in size also appear in but one text each: "Distribution of Population in 1920," "Annual Value of Manufacturing in the United States," "Iron Deposits of the United States," and "Cotton Regions of the United States." Three maps smaller than one page and larger than one-half page in size are: "The Disputed Alaskan Boundary," "The Unification of Italy," and "The United States in the Pacific."

There are certain progressive black-and-white maps in the texts that do not lie wholly within any of the foregoing periods. The one appearing in the largest number of books (seventeen) is "Centers of Population since 1790." Two of these seventeen maps are one-half page in size, and the remaining fifteen are smaller than one-half page. A map showing the territorial acquisitions of the United States to 1853 appears in seven of the books, five of the maps being one page in size and the other two smaller than one-half page. A map one-half page in size showing the immigration from Europe to the United States before and after 1885 appears in one book, and a map, smaller

than one-half page in size, showing the percentage of population increase in the United States at different periods is found in another book.

CONCLUSIONS

The outstanding conclusions which seem to be justified from the data presented in the foregoing pages are that in the present supply of textbooks in American history for the junior high school grades there is a preponderance of war maps, especially those of the black-and-white type; there is a large number of maps smaller than one-half page in size (a comparison of the totals in Tables II to VII, inclusive, will show the extent to which this size exceeds all other sizes); there is considerable uniformity in the size of the colored maps, more than two-thirds of them being one page in size; there is general agreement on certain maps, the chief ones being "Territorial Expansion of the United States," "Settlements in the Middle Colonies," "Boston and Vicinity," and "Campaigns in the West (Civil War)"; and, finally, there is a conspicuously small amount of attention given to objectifying social and industrial phases of history by means of maps. It should be said on the last point, however, that the more recent texts contain social and industrial maps in greater numbers than do the older texts. It seems, therefore, but a question of time until maps of this kind will find space in our history texts in proportion to their importance.

A STUDY DAY

P. R. SPENCER

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For a number of years the traditional recitation and the methods of study in our schools have been criticized. It has been pointed out, as a result of mental and achievement tests, that the wide range in ability and achievement of the pupils in the ordinary class cannot be met by the average assignment or class recitation. For some pupils the assignment is too difficult and for others too easy. It is claimed that much of the recitation period is a waste of time. The pupil who has mastered his lesson gains very little from the repetition of that which he knows. Other pupils find the recitation a convenient means of getting second hand, with but little effort, that which they have failed to get through their own study. Romiett Stevens pointed out in her study of the recitation period that the classroom activity is largely that of the teacher and that very little real thinking is done by the pupils. In the case of many of the subjects, such as the social sciences, we maintain that their value lies in the application of the knowledge gained to present-day life and its problems. Various investigators have found that most recitations are devoted wholly to the mastery of facts and that attention is rarely given to the application of these facts to everyday life.

In order to remedy the defects, various plans and experiments have been tried. Homogeneous grouping of pupils in classes is found in many schools. Supervised study is being tried. A number of schools are experimenting with the project curriculum. In the last few years a great deal of interest has been aroused in the Dalton and Winnetka plans of individual instruction.

In our attempt in St. Cloud to make the school day more effective, some of the ideas which have been worked out in a number of other school systems have been adapted to the local situation. The school organization above the sixth grade consists of a departmentalized seventh- and eighth-grade junior school and a four-year high school.

In our junior school, which offers only a few elective subjects, we have been able to make use of homogeneous grouping, with A, B, C, and D sections. In the high school there are superior, average, and slow sections in English in addition to a "hospital" class. There are two groups each in mathematics, the social sciences, and general science. In the other subjects it has been practically impossible to have any homogeneous grouping.

The forty-minute period has been changed to an hour period. With the sixty-minute period less time, instead of more, is being given to class recitation. An attempt is being made to check the pupils' mastery of the subject-matter by means of frequent short tests of the yes-no, analogy, and completion types. These are either given to the pupils in mimeographed form or dictated by the teacher at the beginning of the period and, for the most part, corrected in class by the pupils. On the average, fifteen or twenty minutes are used for class discussion and explanation. In such subjects as the social sciences, the class discussion is taken up with the consideration of problems in which application is made of the facts studied. Special topics are discussed, but practically no time is spent in questioning the pupil with regard to this or that information. The rest of the period is devoted to the assignment and directed study.

It has been felt, however, that even if there were really homogeneous grouping, a proper distribution of the classroom time, effective methods of teaching pupils how to study, and a more frequent check on the pupils' work, there would still be much to be done in meeting the needs of the individual pupil. The best grouping is only partly homogeneous. There is a great range and variation of ability in the most carefully selected groups. Even pupils with approximately equal ability vary greatly in the ease with which they are able to understand and solve various problems within a given subject. Furthermore, one pupil finds one subject difficult and another subject easy. In the last analysis, it has been felt that there must be a greater amount of individualization of instruction. To this end a free study day is being tried out. On Wednesday of each week there is no class schedule. The pupils have no definite assignment, and there are no class recitations. Each pupil spends his time as he sees fit. He studies what he pleases and for as long a time as he

wishes. If he wants to study history, he may go to the library or study hall or to the room of his history instructor and study under his supervision. A pupil may spend five hours on one subject or one hour on each of five subjects. He need not go to any instructor's room during the day but may spend all his time in the study hall or library. Table I shows the amount of time the pupils devoted to the different subjects on Wednesday, February, 25, 1925.

At the beginning of the first period the pupil goes to his home room, where he makes out his schedule of work for the day, indicating on a card the subjects to which he will be giving attention, the room numbers, and the names of the instructors. In order to avoid confusion in going from one place to another and in order to check the pupils in their work, changes are made only at the end of each hour. Thus the pupil must spend at least one hour in each room where he goes for work. As he enters each room for study, he leaves his card with the instructor in charge; the card is checked by the instructor and returned to the pupil when he leaves. At the end of the day the pupil returns to his home room and gives his card to his home-room teacher.

It was found that certain pupils did not plan their time wisely. In these cases the home-room teacher makes out the study cards for the day. The teacher sees to it that the pupils who are failing in one or more subjects devote extra time to these subjects on Wednesday. The home-room teacher is in a position to aid her pupils in making out their study schedules, as she visits the homes of her pupils, passes out the report cards every six weeks, talks over failures with the pupils and their parents, and consults with the pupils' instructors regarding the causes of failure. The home-room teachers report that in the case of from 90 to 100 of the 640 pupils the Wednesday schedules are either partly made out by the teacher or checked by her to see that the pupils have indicated study in those subjects in which they are doing poor work.

Assignments are made on Thursday for the week following. The pupil who can do in four days the work assigned for the week in a particular subject does not need to study that subject on Wednesday. So far as possible, the instructors make required and optional assignments. The required assignment is planned to cover five days

TABLE I

NUMBER OF PUPILS DEVOTING THE SPECIFIED AMOUNTS OF TIME TO THE
VARIOUS SUBJECTS, FEBRUARY 25, 1925

Subject	Subject Enrol- ment	1 Hour	2 Hours	3 Hours	4 Hours	5 Hours	Total
Advertising.....	29	8	6	1			15
American history.....	177	70	11	2			83
Art I.....	29	6	6	2			14
Art II.....	7	1	2	2			5
Art III.....	6	1	1	1			3
Biology.....	58	12					12
Bookkeeping I.....	43	5	12	12	1		30
Bookkeeping II.....	11	3	3	1			7
Boys' glee club.....	21	18					18
Boys' gymnasium.....	88	85					85
Business English.....	30	5					5
Business practice.....	55	30	6				36
Chemistry.....	60	14	25	3	4		46
Class play.....	11	1	1				2
Cooking I.....	64	7	3	1			11
Cooking III.....	22	1	1				2
Costume design.....	22	10	5				15
Debate.....	6		1	1			2
Economics.....	144	48	18	4			70
Electricity I.....	19	17	1				18
English I.....	183	84	28	3			115
English II.....	183	95	7	1	1		104
English III.....	153	55	13	3			71
English IV.....	123	36	12	2			50
Extra-curricular activities.....		2					2
French I.....	55	32	7				39
French II.....	32	12	4				16
Gas Engine I.....	30	14	8	4			26
Gas Engine II.....	15	1	1	1		1	4
General history.....	176	87	10	1			107
General science.....	189	99	28	1			128
General Shop I.....	35	22					22
Girls' gymnasium.....	106	91	8				99
Higher algebra.....	25	12	7	1	1		21
Latin I.....	42	26	1	1			28
Latin II.....	59	31	17				48
Latin IV.....	13	5	4				9
Library.....		121	67	18	5	1	212
Machine shop.....	12	7	2				9
Mathematics I.....	149	75	26	1			102
Mathematics II.....	56	21	8	1	1		31
Mechanical drawing.....	20	6	6	3	1		16
Office work.....			1				1
Orchestra.....	38	34		1			35
Physics.....	50	22	8	2	1		33
Printing I.....	33	13	8	2			23
Printing II.....	14	6	1	3	1		11
Public Speaking I.....	80	13	3				16
Public Speaking II.....	12	9	3				12

TABLE I—Continued

Subject	Subject Enrolment	1 Hour	2 Hours	3 Hours	4 Hours	5 Hours	Total
Review English.....	29	5	3	1			9
Sewing I.....	41	15	15	3			33
Sewing II.....	50	19	16		1		36
Solid geometry.....	13	5	1				6
Stenography I.....	21	5	1	2			8
Stenography II.....	7		1				1
Student Council.....		18	3	1			22
Study hall.....		107	37	3	2		149
Tech (school paper).....		5					5
Techoes (school annual).....		9	1				10
Typewriting I.....	87	39	9				48
Typewriting II.....	22	11	3				14
Woodworking I.....	25	15	7				22
Woodworking II.....	22	5	1				6
Total.....	3,102	1,631	497	89	19	2	2,238

of work for the average pupil. If the optional assignment is completed, the pupil receives extra credit.

The Wednesday study day gives the pupil who is having difficulties an opportunity to get individual help. The classroom teach-

TABLE II

AMOUNT OF INDIVIDUAL HELP RECEIVED BY
PUPILS FEBRUARY 25, 1925

Number of Minutes of Help Received	Number of Pupils
Up to 2.....	1,034
2- 5.....	310
6-10.....	96
11-15.....	42
16-20.....	3
21-25.....	3
26-30.....	6
Total.....	1,494

ers were asked to report the number of pupils to whom they gave individual help on Wednesday, February 25, 1925, and the amount of help given in each case. Table II summarizes the reports. The number of pupil hours of classroom study was 2,139.

There was some doubt in the minds of many of the instructors

with regard to the results of the plan. At the present time, however, both the pupils and the instructors feel that the plan is successful. The study day helps to bring failing pupils up to standard. It gives the pupil who is interested in some problem, special report, or experiment an opportunity to work on it. It provides training in planning a day's work. In St. Cloud it has practically eliminated "snap" courses and has made teachers who were unreasonable in their assignments demand less of their pupils. Teachers whose work was too easy did not have pupils come to them on Wednesday because the pupils could do their five days of work in four. On the other hand, the teacher who prided herself on giving stiff courses was literally mobbed on the study day.

SCHOOL ACHIEVEMENT AND ATTENDANCE

CHARLES H. BUTLER

University High School, University of Missouri

Many studies have been made for the purpose of ascertaining the effects of various factors in the lives of pupils on their achievement in the subjects which they are studying in school. There have been a great many investigations of the relation of intellect, as measured by intelligence tests, to scholastic achievement; and home environment, physical condition and health, age, sex, nationality, special interests, and numerous other items have been studied in the effort to get an idea of the relation which they bear to scholastic achievement.

The item of regularity of attendance, however, has largely escaped the scrutiny of investigators. There is practically nothing in educational literature bearing on the effect which this obvious and (one would judge *a priori*) rather important factor has on achievement. The writer has for some time had a feeling that there is probably a definite relation between attendance and achievement, and it was for the purpose of testing this hypothesis that the present study was undertaken.

In the University High School of the University of Missouri a report for each class is filed in the principal's office by the teacher at the end of each month. This report contains the names of the pupils in the class, the mark of each pupil for the month, and the number of times each pupil has been absent from the class during the month. There is also on the report blank a space for any remarks which the teacher cares to make relative to the work or the mark of each pupil. Thus there is available in these reports the information needed for an investigation of the relation between attendance and scholarship.

A total of 1,913 monthly marks were included in this study, and these distributed themselves in general accordance with the probability curve. Since this large number of marks may be presumed

to give some assurance that the investigation is concerned with a typical situation, it is felt that the results may be viewed as valid and significant and of more or less general applicability.

The marking system in use consists of five letters: E (excellent), S (superior), M (medium), I (inferior), and F (failure). A tabulation was made of the number of times each of these marks appeared in all the reports for the first four months of the school year 1924-25; a similar tabulation was made of the number of absences corresponding to the different marks. The results are shown in Table I.

TABLE I

	MONTH				TOTAL	AVERAGE PER MONTH
	First	Second	Third	Fourth		
E:						
Number of marks.....	23	25	34	46	128	.....
Number of absences.....	2	11	13	25	51	.398
S:						
Number of marks.....	133	142	127	125	527	.....
Number of absences.....	48	49	66	79	242	.459
M:						
Number of marks.....	240	235	238	198	911	.....
Number of absences.....	154	93	203	183	633	.695
I:						
Number of marks.....	87	79	65	60	291	.....
Number of absences.....	141	69	95	120	425	1.460
F:						
Number of marks.....	7	17	12	20	56	.....
Number of absences.....	15	50	49	49	163	2.911

This table is to be read as follows: In the four months for which this study was made there were 128 E's reported, and the pupils who made these marks had a total of 51 absences from the classes in which the marks were earned. The results for any individual month may be found by reading the appropriate column in the table.

The results show a distinct relation between achievement and attendance. From the data it appears that the pupils making the highest mark had an average of less than four-tenths of an absence per month of twenty school days; stated in other words, the pupil making a mark of E was absent from class only once in two and one-half school months. On the other hand, the pupils making the

lowest mark had an average absence record of nearly three times a month, or more than once in every seven days. In a word, the pupils who made the lowest mark were absent from class 7.3 times as often as those who made the highest mark.

It is also noticeable that this general relation obtains consistently, although not with perfect regularity, for each graduation in the marking scale. Thus the "M" pupils were absent more often than the "S" pupils, and the "I" pupils more often than the "M" pupils. These facts are shown graphically in Figure 1.



FIG. 1.—Average number of absences per month

The extent to which irregularity of attendance is the *cause* of low marks is not known and cannot be determined from this study. It may be that the low marks cause the increased absence, or it may be that there is some other factor which affects both attendance and achievement in somewhat the same way. No attempt is made in this report to settle this question, although examination of some of the teachers' records leads the writer to the belief that irregular attendance is an important contributory cause of poor achievement. It appears at least that regularity of attendance may be taken as a fairly valid *index* of achievement and one that may have a rather large diagnostic and prognostic value. Should further investigations corroborate the findings here presented, extensive study of the causal relations involved would be warranted.

THE PLACE OF SCIENCE IN THE SECONDARY SCHOOL. II

GEORGE W. HUNTER
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Just as the report of the Committee of Ten in 1893 did much to crystallize opinion as to what the teaching of science should be from the college point of view, so the recent report of the Committee on Science of the Commission on the Reorganization of Secondary Education has done much for science from the high-school point of view. In this report there is a distinct breaking away from the traditional, building four-square on the bed-rock of psychological, pedagogical, and scientific correlation. Inasmuch as several different types of high school are recognized, it is obvious that no general plan can be formulated which will fit every school. On the other hand, the report recommends a rather definite sequence of general science, biological science, physics, and chemistry. Physics and chemistry are suggested as third- and fourth-year subjects without any very definite specification as to the exact position in the curriculum.

Since teachers think for themselves and their judgment is often better than that of the supervisors who organize the subjects they teach, a series of questions were planned which were intended to find out definitely the thought and beliefs of science teachers with regard to the sequence of science in the secondary school. The following questions were asked: "What is the sequence of science in your school? Why do you think this the best sequence?" The following are typical answers. Answers have been selected from schools which have developed a sequence of general science, biology, and physics-chemistry or chemistry-physics.

Humboldt High School, St. Paul, Minnesota.—General science will awaken interest in any or all other sciences and result in intelligent selection. Biology is a good prerequisite for home economics and also for chemistry.

St. Cloud High School, St. Cloud, Minnesota.—Hygiene, because so many students drop out in the eighth grade; general science and general biology to

arouse and develop interest. Physics comes closer to the mathematics which pupils had the first two years.

North High School, Minneapolis, Minnesota.—General science is introductory. Everyone should have it in order to acquaint him with the nature of science so that he will be in a position to judge whether or not he cares for further scientific work. There is no *particular* argument as to the order of the other sciences unless it be that botany and biology are more directly concerned with life-processes and should come next.

Clinton High School, Clinton, Iowa.—In the freshman year we attempt to acquaint the pupils with numerous natural concepts with which they have been associated for a number of years but to which they have failed to give much consideration. The second year we give agriculture because we live in an agricultural community. Physics is given chiefly for college entrance. Chemistry is advised because it plays a large part in our industrial life today.

South High School, Grand Rapids, Michigan.—General science should be made a basic science, a place where the pupil may explore and find himself in the science field and, as a result, choose more intelligently the science for which he is best fitted for later development. Botany and zoölogy are less abstract and hence more tangible in their everyday experiences than either chemistry or physics. It brings about a better transition from the known subject-matter to the unknown. It affords a chance for training in laboratory methods and thus saves time and energy for the pupil when he reaches the more abstract things in chemistry and physics. The biological attack through botany and zoölogy aids the pupil better to understand, appreciate, and assume a balanced attitude toward the physiology of his own body. A knowledge of chemistry is of more value in the understanding of physics than is a knowledge of physics in the understanding of chemistry.

Taunton High School, Taunton, Massachusetts.—It stimulates interest and meets the growing needs of young people. It is well adapted to their developing powers and perhaps well adapted to develop mental power. It brings the study of chemistry and physics nearer the entrance-examination period.

Polytechnic Preparatory Country Day School, Brooklyn, New York.—Of course, physiology and general science should come first. As we teach it, biology requires a less mature mind than does either chemistry or physics. Chemistry requires more memory work but less reasoning. For a boy who has not had biology, chemistry is usually more interesting and affords a better approach to science work than physics. Chemistry is more concrete.

City High School, Asheville, North Carolina.—Nature of subject and "degree of difficulty" best suited to age. General science and biology reach larger numbers, which is as it should be.

Phillips High School, Birmingham, Alabama.—Pupils are naturally most interested in the phase of science which is most closely related to their everyday lives (general science) and living things (biology); in case pupils do not continue

through the whole four years, general science and biology furnish the most useful knowledge.

Pasadena High School, Pasadena, California.—The reasons are very well stated in the N.E.A. committee report. General science has been taken by many heretofore but has not been required, as the junior high school was organized in only one district. Hereafter it will be broadened to include citizenship and will be called civic science.

Lowell High School, San Francisco, California.—It seems to be best adapted to the maturity of the pupils. Also, when chemistry and physics are offered in the last two years, these subjects have a chance to reap the advantage of any previous training in mathematics. Physiology follows and can build upon the biology. Physiography as here offered has become mostly an "interest" course.

Union High School, Palo Alto, California.—General science introduces science-thinking and science method in a simple way. Biology is not as difficult and can develop a greater interest than can either chemistry or physics. Both are more important for a general science knowledge and will therefore reach more pupils, those who never graduate.

Troy High School, Troy, Ohio.—We believe that general science should be required of all Freshmen because it serves as an "eye-opener" in the world of science. We find that with good teachers we have about the best interest in general science that we have in any ninth-grade subject. The interest of many a student in the future study of science has been stimulated by his study of general science. Some of our best students in physics have told me that they were handicapped because they did not choose general science. At one time general science was elective instead of compulsory in our school.

The question was asked, "Do the chemistry and physics courses gain anything from earlier science courses?" Two hundred and seventy-eight schools answered, "Yes"; 12 qualified their answers by saying, "Very little," "Think so," "To a degree," etc.; 28 were doubtful or did not know; and 26 answered, "No."

A few answers selected at random give the reactions of teachers who believe that the later courses in science gain from the earlier courses.

Menomonie High School, Menomonie, Wisconsin.—Pupils learn in earlier courses to use their hands, to apply what they have learned, to depend on themselves, etc. Pupils without science do not do as well in laboratory work as those having previous training.

Oshkosh High School, Oshkosh, Wisconsin.—The teachers of chemistry and physics say that they believe the pupils gain much from the earlier sciences both in subject-matter and in laboratory technique. They are sure that biology is a great help.

Froebel High School, Gary, Indiana.—Yes, indeed. The work done in general science and biology arouses an interest in science in general. We notice that our best students in physics and chemistry have been in the earlier science classes.

Emmerich Manual Training High School, Indianapolis, Indiana.—Gain from general science. Not many of our chemistry and physics pupils have had room on their schedules for biology or physiography during the second year. Other department requirements seldom leave opportunity for more than two years of science at maximum.

North High School, Minneapolis, Minnesota.—We think they do. Just how much is a matter of opinion. I am trying to collect some information along that line this year. In an investigation conducted last year, it was apparent that work in general science affected work in physics. Those having had general science were better prepared for physics.

Southwestern High School, Detroit, Michigan.—They do. General science and biology both allow pupils to "find themselves." They eliminate some from chemistry and physics who have no natural talent along those lines; also they give the pupil a foundation that makes physics at least easier of approach. I believe this is true of chemistry also.

Rindge Technical School, Cambridge, Massachusetts.—Yes. It has become very difficult to start a pupil in a differentiated science if he has not had general science.

Dorchester High School, Boston, Massachusetts.—Question rather indefinite (perhaps purposely). They do not gain especially in number of pupils; since the earlier science courses meet the diploma requirements, that ends it for most of the commercial pupils. As to grasp of the subject, pupils who have had an earlier course adopt the scientific method more readily and are acquainted with a certain body of related scientific facts.

Pittsfield High School, Pittsfield, Massachusetts.—Yes. I believe that general science paves the way so that they are familiar with terms and principles although they may not have a clear understanding of them.

Technical High School, Providence, Rhode Island.—General science emphasizes physics in part, especially for boys; physiology prepares for nutrition in the case of girls; advanced botany depends on beginning botany and continues it. Chemistry helps, in a degree, the biology work which has for its object human physiology and evolution.

Mount Vernon High School, Mount Vernon, New York.—They gain a desire for more science work. They learn how to handle simple apparatus. They experience the joy of finding out things for themselves so that many look forward to later science courses. They learn how to write out an experiment in good form. They learn how to keep a notebook and value it as a means of study. It is difficult to tell just how much this counts later on, but I think that it must have its effect.

Sandusky High School, Sandusky, Ohio.—The knowledge gained in general

science is sure to aid the student of chemistry and physics, but more valuable than that is the interest which is aroused in the more advanced science courses by the elementary general science. When general science is taught, there will be more pupils taking chemistry and physics.

Springfield High School, Springfield, Ohio.—Method of scientific approach more than content.

McKinley High School, St. Louis, Missouri.—Nothing in information; a great deal in attitude and method of attack. It seems to aid pupils in selecting sciences which they like.

Central High School and Junior College, St. Joseph, Missouri.—Yes. An appreciation of science and man's dependence upon it.

Phillips High School, Chicago, Illinois.—Ability to follow laboratory outline and some broader understanding of facts as presented in the later work.

Flower Technical High School, Chicago, Illinois.—Yes. The skill in manipulation, the knowledge of terms, the spirit of inquiry, and the judgment and attitude of mind developed by the work in the earlier years are distinctly helpful in the more advanced work.

The following answers are from teachers who qualified their statements or who do not believe that the later sciences gain from the earlier sciences:

Humboldt High School, St. Paul, Minnesota.—Yes, if properly taught; if not, earlier sciences better omitted.

Densfeld High School, Duluth, Minnesota.—I feel sure that much of the element of surprise is lost by having general science precede.

Taunton High School, Taunton, Massachusetts.—Not an appreciable amount; that is not our object. The amount of chemistry and physics taught in connection with general science and biology has its own value as related to those subjects. As chemistry and physics, they are valuable if pupils leave school early. I do not think a foundation is laid for the more extended study later in the course. I doubt if it increases the number of pupils electing junior and senior science.

Langley High School, Pittsburgh, Pennsylvania.—I believe that they do not. If anything, I believe that they lose. However, this question cannot be answered without statistics, and I believe that none are available. My opinion is that general science should serve to give some science to those pupils who drop out before they reach chemistry or physics or for other causes do not elect the higher courses rather than to help in the higher courses.

Yonkers High School, Yonkers, New York.—No. Too much stress and value are placed on the passing of the subject and too little on the formation of scientific habits of study and the inculcation of scientific principles.

City High School, Alhambra, California.—We usually advise pupils who expect to take chemistry and physics not to take general science. With us gen-

eral science is primarily for pupils who do not expect to take advanced work along that line and who do not expect to enter college. I hardly believe that the interest created in scientific study in general science warrants urging pupils to take that subject as preparation for chemistry and physics.

The question was asked, "Are your science courses more closely related to one another and to the other sciences in the secondary school than they were fifteen years ago? If so, how?" To this question, 211 schools answered, "Yes"; 10 qualified their answers; 50 were uncertain or unable to answer; 49 said, "No." A few of the typical answers follow:

Flower Technical High School, Chicago, Illinois.—Yes. As a technical school, we try to relate all our science work to the technical subjects taught, and we believe that we are continuously progressing in this effort.

Bowen High School, Chicago, Illinois.—They are. The emphasis is now more on the economic and ecological facts which relate all sciences. Knowledge has advanced greatly in this line.

Lane Technical High School, Chicago, Illinois.—The introduction of general science to take the place of a specialized science in the first year has done a great deal in this direction.

Fenger High School, Chicago, Illinois.—Yes. A more practical treatment brings them into closer relation with life and therefore with one another.

Proviso Township High School, Maywood, Illinois.—Yes. General science tends to show the relation between the sciences. Teaching methods and modern textbooks tend to correlate the work better and relate the work more closely to everyday life.

LaSalle-Peru Township High School, LaSalle, Illinois.—Yes. Botany and zoölogy have been combined into biology. The course in general science has made the relations of other sciences clear. The course in agriculture has shown the need of the other sciences. The teachers also co-operate more.

McKinley High School, St. Louis, Missouri.—Yes, but only in the respect that in all sciences the unifying element is now more the "pupil's interest" than the unity of the science itself.

Cleveland High School, St. Louis, Missouri.—Yes. Within the grade schools has been established a course in nature-study which, in a measure, links the pupils' elementary science work with general science.

Wellston High School, Wellston, Ohio.—Yes. We are coming more and more to the laboratory method in biology and general science. They are more closely related to mathematics and geography than formerly.

Canaan Township High School, Creaton, Ohio.—Yes. More closely related. The continuity of nature is emphasized to a greater degree in recent textbooks. Also a good modern teacher will emphasize this feature.

Cleveland Heights High School, Cleveland Heights, Ohio.—Yes. Through con-

ferences of the teachers we succeed in making "common material" "carry over." Each course inspires many pupils to take a more advanced or later course.

Sandusky High School, Sandusky, Ohio.—Yes. The courses are so planned and the texts so chosen that there is much less ground covered now than formerly. Now it is a gradual development from the simple general science through the interesting study of biology to the more difficult subjects of chemistry and physics.

Springfield Township Centralized High School, Ellet, Ohio.—Science courses in general are now more closely related because of the present educational trend to inter-relate all subjects of the curriculum so far as possible.

Ballard High School, Seattle, Washington.—We emphasize sequence. There is a closer interest and co-operation between the science teachers now than formerly. The teacher of a science subject more than formerly sees good in the other sciences.

Lawton High School, Lawton, Oklahoma.—Very much more so. (1) General science presents survey of details to come in later courses. (2) The relation between structure of organisms in human beings, animals, and plants definitely connected, the human being used as a basis for comparison. Courses organized with this end in view. (3) Closer organization of the teachers in the department and a departmental head who strives to attain this end. I believe that this is the most important. Unless this is kept before those in the department, organization of courses loses vitality.

Yonkers High School, Yonkers, New York.—All courses in science are related. There is, of necessity, overlapping of subject-matter and fundamental principles of pure science. There is not much opportunity for correlation when each department exists as a separate entity. It is true that such conditions must obtain when the requirements are set by the state.

Germantown High School, Philadelphia, Pennsylvania.—Again comparing 1915 with 1923, yes. Laboratory exercises and textbook material are chosen more largely for their bearing on practical work in electrical, machine, and wood shops; also on industries involving chemical knowledge and on commerce.

Northeast High School, Philadelphia, Pennsylvania.—Yes, especially in the first two years. Fifteen years ago little attempt was made to do anything "real" for the boys during the first two years; they were taught by the newest and poorest teachers in the department.

Fort Dodge High School, Fort Dodge, Iowa.—They are. We are better equipped and do more laboratory work. We also correlate the science courses with the English courses. Books read for science are also used in English—for example, *Life of the Bee* by Maeterlinck, *Creative Chemistry* by Slosson, etc.

Proebel High School, Gary, Indiana.—Yes, that is true. We have better teachers and better textbooks. We know better what we ought to teach; we also know better how to teach it. Teachers are coming to us better trained in pedagogy; they also have a fuller knowledge of science in general.

Oshkosh High School, Oshkosh, Wisconsin.—Yes, I believe they are. Courses of study of the various sciences taught in the high school have been made out and compared in science meetings, and a definite attempt has been made to relate them closely. Also the course of study has been connected with work done in the grades, such as nature-study.

The foregoing statistics and statements seem to indicate certain changes in the aspect of science-teaching in the secondary school. There are two groups of teachers in both high school and college, the specialists and those who believe in a broad, more or less correlated view of the sciences as a part of the educational background. Too many high schools are allowing overspecialization in science or in some phases of science as well as in some other subjects. Even more is this seen in college work, even in the conservative cultural colleges. Students are frequently found who are majoring in one science, completely neglecting all other sciences. The university man has become more and more specialized in his field. This delimiting of one's scientific horizon is bad enough for the advanced student, but it is far worse for the younger student. Although this is an age of specialization, most of us will not specialize, and it is the business of the public high school to fit the child into his environment so that he or she may best interpret this environment and thus develop a wholesome well-being.

What, then, is modern science attempting to do, and whither are we trending in the high-school curriculum? To answer this question we can only refer to the changes that have been taking place in the subject of biology within the last fifteen years. In order to obtain data on this point certain questions were asked which were intended to compare the conditions in biology-teaching of fifteen years ago with present conditions. These questions were asked of practically the same schools in 1908. The first question was, "Underline the phases of biological subject-matter upon which you place the most emphasis: morphology, human physiology, natural history, taxonomy, ecology, relations to man (economic), human biology, health.¹ Why this emphasis?" Figure 3 indicates the difference in emphasis. In 1908, of the 276 schools answering, 139 placed emphasis on morphology; 178 on human physiology; 76 on natural history; 27 on

¹ Not included in 1908.

taxonomy; 136 on ecology; 138 on relations to man; 55 on human biology. In 1923, of the 368 schools answering, 106 placed emphasis on morphology; 226 on human physiology; 106 on natural history; 19 on taxonomy; 114 on ecology; 257 on relations to man; 216 on human biology. An additional topic was added in 1923, namely, health; 261 schools reported that they placed emphasis on this topic. The situation indicates a decided change in the teaching of biological

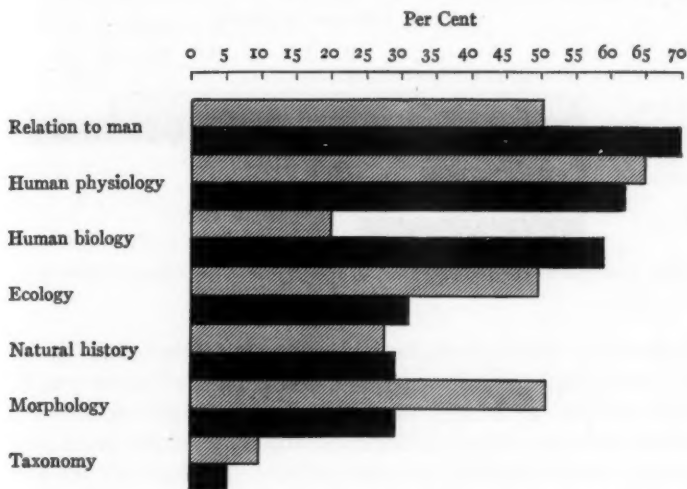


FIG. 3.—Percentage of schools placing emphasis on various aspects of biological subject-matter in 1908 and 1923 (shaded, 1908; black, 1923). In 1923, 261, or 71 per cent, of the schools reporting emphasized health.

subject-matter in the secondary schools. Health and human biology and the relations of biologic phenomena to the well-being of man are the phases which loom largest in the perspective of high-school teachers. The teaching of morphology is apparently only used in so far as it may explain physiology. The teaching of natural history, particularly in its ecological and taxonomic aspects, has lost ground.

These figures indicate very clearly a trend in biological teaching. A second question which was asked in 1908 and repeated in 1923 gives another indication of this trend. The question read, "Should

a course in elementary biology in the high school place primary emphasis on training in science method, or should the utility or informational values be given first place?" In 1908, 66 schools reported that they placed primary emphasis on science method as such; 93 schools placed primary emphasis on the utility or informational values; 27 schools emphasized both science method and utility values. In 1923, 55 schools reported that they placed the most emphasis on science

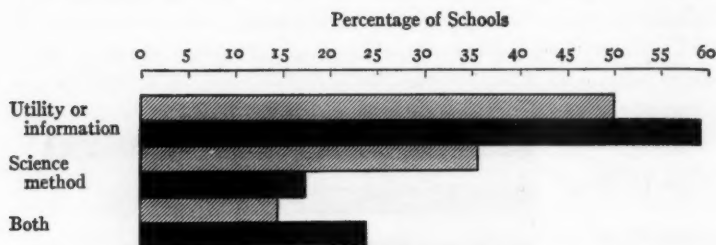


FIG. 4.—Primary emphasis in elementary biology in 1908 and 1923 (shaded, 1908; black, 1923).

method; 187 schools placed the most emphasis on the utility values; 75 schools emphasized both phases. These data are shown graphically in Figure 4. In view of other information that we have, we believe that these figures indicate a change in point of view among teachers rather than less scientific teaching. Teachers are now emphasizing values of most use to the student and, at the same time, are teaching these values by the method of science.

The purpose of a third question asked in 1908 and again in 1923 was to find out how the high schools were fitting young people for life so far as the biological sciences aid in this equipment. The question read as follows: "How should such a course adapt itself to the needs of the student who does not go to college and for whom the high school is the only preparation for his life-work?"

In 1923 an attempt was made to interpret the answers to this question in terms of the six objectives recognized by the Committee on Science of the Commission on the Reorganization of Secondary Education, namely, health, worthy home membership, citizenship, vocation, use of leisure time, and formation of ethical character. It

was somewhat difficult to interpret this question in this light, but in most cases it could be done. While the following figures are not exact, they may be taken as indicative of science courses the country over at the present time. One hundred and ten schools place emphasis on health teaching; 28 on worthy home membership (this number is small probably because of the necessary inclusion of this topic with health teaching); 172 on citizenship; 33 on vocation; 27 on use of leisure time; 33 on formation of ethical character. These data are presented graphically in Figure 5.

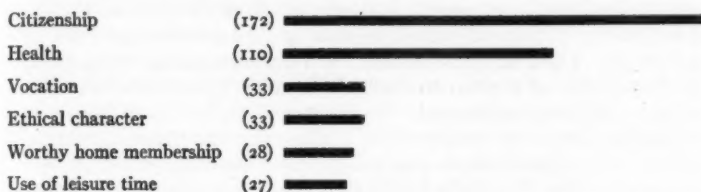


FIG. 5.—Number of schools placing emphasis on various objectives of science teaching.

Verification of the foregoing statements is found in a series of comments made in connection with a last item included in the 1923 questionnaire. This item is as follows: "Remarks or suggestions. Under this heading the writer would be glad to have teachers write fully, giving their judgment and such evidence as they can produce as to the changes that have taken place in the organization of courses, the definiteness of sequences in science courses, the kinds of students who elect courses, the interest taken in science, the preparation of teachers of science, or any other topic germane to the problems under consideration." A few typical answers follow:

Riverside High School, Milwaukee, Wisconsin.—The sciences have more unity. There is less of the separate science and more of science as a whole. I believe that there is more interest taken in science. Students are realizing that science is essential to a well-rounded education. The more science of all kinds, the better is he or she able to teach successfully.

Central High School, Cape Girardeau, Missouri.—I am convinced that the social and economic values of sciences are often lost sight of. We make biology as nearly a social science as we can. The other three do not lend themselves as readily, but we give social values emphasis.

Emmerich Manual Training High School, Indianapolis, Indiana.—Old textbooks and old notebooks in physics (used here formerly) indicate that the old laboratory courses were "physical measurements." We still do quantitative experiments, but "measurements" have given way to some extent to "phenomenology." We have changed our old botany with its attempt at technique and general academic flavor to biology with little technique but with more information. General science marks a departure in favor of a more humanitarian point of view. Our problem is to decide how far we should go in the direction of popularized science. At the two extremes are formal, fundamental science of the highly organized type and completely popularized science. Between the two is our school science.

Clinton High School, Clinton, Iowa.—In comparing the physics and chemistry of today with those subjects eleven years ago, as I remember them as a high-school pupil, I find very little change. I find one difference, however, and that is the tendency of the text to emphasize a more intimate relation of these sciences to the industrial world. This is accomplished by illustrating and discussing the things in the outside world. I believe that a few chemistry texts with which I am familiar have succeeded to a greater extent in this respect than have the physics texts. Our physics laboratory is most static. I can see no changes in my time. My criticism is that the exercises are too theoretical and mathematical and should be more directly applicable to the pupil's everyday life.

In the study of biology there has been, perhaps, more change than in any of the other sciences. The work has been much simplified as it has been pushed farther down in the course. It has been made more practical by doing away with much of the microscopic and theoretical work and limiting the subject-matter largely to the study and explanation of the things which immediately concern the pupils in any given community. My criticism is that there seems to be no logical connection between the science courses offered in the junior and senior high schools. Each is separate and distinct. Many of the pupils elect only one course. I think that at least one year of science should be required for high-school graduation. All pupils need to learn more about their environment.

Central High School, Harrisburg, Pennsylvania.—The courses with which I am familiar are growing away from the idea that the college-preparatory type of question is the important one in biology. Information itself is considered of little value unless it is applied. To do really satisfactory work, a girl must show improvement in posture, in the care of her teeth, in the care of her eyes, in interest in scientific discoveries, and in all the other things emphasized in the courses.

R. J. Reynolds High School, Winston-Salem, North Carolina.—The one big fault of our high school has been to cater to college requirements rather than to the best interests of all the pupils concerned. We should keep in mind the fact that the larger percentage of our pupils do not go to college; yet the tendency is to sacrifice the many unfortunate ones for the benefit of those who are more for-

tunate. If it were practical to separate the classes into two groups—those who are going to college and those who are not—then courses could be arranged to suit both groups. This not being practical in many cases, a plan should be followed which will meet the needs and demands of the greatest number of our pupils.

Santa Barbara High School, Santa Barbara, California.—I believe that a definite sequence of science courses should be required if science majors and separate classes are conducted for high-school pupils. I also believe that physics and chemistry teachers should be trained in the sciences which precede in the school program those which they teach and should understand the youth of fourteen or fifteen years of age. We have four times as many students in biology as we had three years ago. We are unable to take care of all who want it now; we even have a waiting list for our classes. All science teachers should have more training in life-sciences.

South Pasadena High School, South Pasadena, California.—I believe that a general science course gives a fine opportunity for touching upon all that comes nearest to everyday life—to emphasize the inter-relations of the sciences and to arouse interest in separate sciences. Teachers for this course must be well trained in all the sciences.

Central High School, Washington, D. C.—Biology has replaced botany and zoology. General science has replaced physiography (last year). Pupils are of greater range of age and ability than formerly, making planning of courses more difficult and teaching harder. Once in the science courses, pupils have a general interest rather than a special interest, but most of them think of science before they take it as difficult or "queer." In spite of this, we find many enthusiasts who select science for special work in college. This is true of the girls as well as of the boys. Teachers of science who have had no training in teaching tend to use college methods or to hold the old aim of discipline and to require exact technique; also to be influenced by college-entrance requirements.

Schenectady High School, Schenectady, New York.—Schenectady is a science man's town. The General Electric Company magnifies the value of training in science. If teachers of science could give to their pupils vivid glimpses, by means of pictures, lecture demonstrations, etc., of what science is accomplishing, more pupils in other places would elect the work. Approximately 1,400 pupils are taking some science this term. Total enrolment is 2,700.

Northeast High School, Philadelphia, Pennsylvania.—The two greatest changes in our school are (1) the organization of a laboratory course in general science taught by men of considerable experience especially selected for their influence upon younger boys, (2) the change in biology from a "cut-and-dried" course, uninteresting to teachers and pupils, to one which, in my opinion (I am a physicist), is the liveliest and most interesting course in the school. There are 2,700 boys in the school and eighteen men in the science department, the largest department in the school.

West New York High School, West New York, New Jersey.—A somewhat limited (geographically) experience leads me to think that a rather noticeable increase in interest is due more to developments outside the school and to improved texts than to better prepared teachers or other causes. I am not familiar with any definite improvement in organization or sequence.

Santa Cruz High School, Santa Cruz, California.—The changes that have taken place in the biological subjects have been only those relating to the selection of subjects of most value to the pupils, regardless of whether they are to go to college. The fundamental idea underlying the selection has not changed. There has been a constantly increasing interest in these subjects. Seven years ago there was but one class each in biology and hygiene. This year there are six classes in biology and three in hygiene. No complaint has ever come from the state or other university, though the work has never been planned with reference to other requirements.

East Technical High School, Cleveland, Ohio.—In the main, our courses are shaped to meet the personal and future needs of pupils rather than the demands of college entrance.

The foregoing findings seem to indicate, first of all, that science at the present time is not attempted, at least in most schools, simply to prepare pupils to pass college-entrance examinations. Statistics could be quoted from the questionnaire which would prove this statement. Indications also are that science in the high school is much better correlated than it has been in the past, that a sequence is developing which is a rational sequence, and that teachers are beginning to think in terms more comprehensive than those which belong to their own narrow, limited field. General science and biology are becoming more and more the servants of social science. It is becoming evident to educators that if young people are to be prepared for life in a democracy, they must be taught to think straight and act as intelligent humans, and they must be informed as to the scientific background on which to formulate their thinking. Modern science is really teaching how to live. It is interpreting to the pupil his own environment. It is teaching how to be a happier, healthier, saner, and more thoughtful citizen in that environment. Science accepts Poincaré's statement that "man is the measure of his own universe."

Educational Writings

REVIEWS AND BOOK NOTES

Reports on significant experiments in secondary education.—Those on the lookout for important contributions to the literature of secondary education made contact about two years ago with *Studies in Secondary Education. I*, prepared by members of the staff of the University High School of the University of Chicago. Not only the title of the volume but portions of the content as well led its readers to expect further contributions through similar avenues. A second volume¹ recently made its appearance. It reports upon additional portions of the experiments mapped out in the first article of the first volume on "The Major Lines of Experimentation in the Laboratory Schools."

The present volume is composed of two parts, the first dealing with "Pupil-Progress Accounting in the University High School" and the second with "Experiments in Curriculum Organization and Administration." These two parts make up about two-thirds and one-third, respectively, of the monograph. The first part appears to be not only more extended but also more largely objective than the second part, although all portions are valuable.

Each of the parts is in turn composed of chapters or articles. Mr. Reavis contributes the first article in Part I. It bears the caption, "Accounting for the Progress of Superior Students." He calls attention again to the necessity of adapting training to students of superior ability and shows how the University High School resorts not to one means of accomplishing this but to as many as six, namely, homogeneous grouping in some departments, supplementary projects, offering the superior student opportunity to acquire skill more rapidly by permitting him to attempt the work in a more advanced group while still retaining membership in the lower group, permitting the superior student to undertake a heavier schedule than that permitted students of average ability, substitution of voluntary projects for routine requirements, and substitution of junior-college courses for regular high-school courses. Mr. Beauchamp next reports in excellent form "An Investigation of Pupil Progress in Elementary Physical Science." Mr. Kimmel, in an article on "Testing Pupil Progress in Community Life English," does the same, although more extendedly, for the

¹ *Studies in Secondary Education. II.* University High School, University of Chicago. Supplementary Educational Monographs, No. 26. Chicago: Department of Education, University of Chicago, 1925. Pp. vi+202. \$1.75.

(a) reading and (b) language and composition phases of instruction in English. The next article in order, "The Voluntary Project as a Measure of Appreciation in Third- and Fourth-Year English" by Miss McCoy, is of a different type from the two preceding it, being more experiential than experimental in the strict sense. It is, none the less, highly stimulating and suggestive for the field of instruction represented. The fifth report in Part I, by Miss Shepherd, is on "A Preliminary Experiment in Teaching English Usage." Among other things, it provides unequivocal evidence of the need of individualization of instruction for establishing correct usage, for breaking down the attitude of mere "lesson-learning" on the part of students, and for securing carry-over of correct usage to other subjects. The last report in this part, under the composite authorship of Messrs. Bovée, Holzinger, and Morrison, is on "The Construction of Tests for the Measurement of Certain Achievements in French." As the title indicates, it is chiefly concerned with the formulation of tests rather than with the description or evaluation of techniques of teaching, but it affords the tools for such evaluation and for "pupil-progress accounting" in this modern language.

Part II opens with a description by Mr. Hill of "Experiments with Advanced Courses in Social Science for High-School Seniors." It describes the shift in the University High School from "Advanced Civics" prior to 1917 to "Current Events and Problems," to "Business and Society," and to "Modern Problems." The course last named has itself been modified in significant ways during the period of experimentation and is now chiefly concerned with problems in the fields of politics and economics. We are told that sociology is to be recognized in a subsequent extension of the course. This report is followed by one by Mrs. Wiese on a new course in the social-science field, called, "The Worker in Modern Society," an adaptation for high-school purposes of a course bearing the same name given in the School of Commerce and Administration of the University of Chicago. Mr. Breslich contributes the third report, "Development of a First Course in Secondary-School Mathematics," adding another to his many constructive proposals for reorganizing this subject. The fourth and last article is one by Mr. Bond, which he has named, "The Organization and Administration of a First-Year French Course at the College Level." It contains a description of this course by quarters and of the records kept concerning students enrolled. It is objective and intelligible.

The volume as a whole is useful. Each of its ten articles is valuable on its own account; they can stand on their own merits. They are, however, even more significant when considered in conjunction with the whole program of experimentation going forward in the University High School. It is desirable, therefore, that the reader make himself conversant not only with the content of this volume but also with that of the first in the series. Separately and together, the two volumes of *Studies in Secondary Education* report some of the best of the innovations being made on the high-school level in the country.

School organizers, supervisors, and classroom teachers in the subjects represented will find in them much that can at once be applied, because it has already been put to the crucible test of use in a school situation not too far removed in kind from their own.

UNIVERSITY OF MINNESOTA

LEONARD V. KOOS

Education for citizenship.—The paucity of material available in book form for civic education and the widespread interest in the teaching of the social studies in late years combine to give a warm welcome to a recently published work on education for citizenship.¹ The book is designed primarily to provide material suitable for preparing prospective teachers to give adequate citizenship training in the schools. The origin of the book, at least in part, seems to have been due to the recent requirement of the California State Department of Public Instruction that all candidates for teachers' certificates must present evidence of having studied a course in civic education and that this course should consist of plans, methods, and instructional procedure rather than of subject-matter in the form of governmental machinery and constitutional provisions. The present volume is the outgrowth of a course designed to supply such instruction and developed by the author at Leland Stanford Junior University.

After a general introduction devoted to the meaning and problem of civic education, the author organizes his discussion under three main headings: "Putting the School on a Civic Basis," "Using Civic Materials and Methods," and "Integration of the School and the Community." The first part, which is somewhat abstract and theoretical in character, is devoted to a discussion of objectives in citizenship training and to a description of various types of school organization adapted to placing the school on a civic basis. The second part, which occupies more than one-half of the volume, will be found of chief value by classroom teachers. In this part of the book, three chapters are given to a discussion of the selection of subject-matter having civic value; five chapters are devoted to a description of methods of utilizing such material for the development of civic knowledge, civic habits, civic judgment, and civic ideals. Especially helpful are the author's suggestions for utilizing special occasions for civic training. The chief features of value in the third part of the volume are the suggestions for civic training through community service and the suggestions for co-operation between the community and the school.

The plan of the book is admirable for teaching purposes. Each chapter opens with a statement and an analysis of the problem to be discussed. Various methods of procedure are next summarized and evaluated. Descriptions of solutions attempted by various instructors are then given; unfortunately,

¹ John C. Almack, *Education for Citizenship*. Boston: Houghton Mifflin Co., 1924. Pp. xviii+288. \$2.00.

these descriptions are occasionally too condensed to prove serviceable to teachers. An enumeration of guiding principles and a brief summary conclude the chapter. Exercises and problems, usually practical and thought-provoking in character, and a list of references, many of which are annotated, accompany each chapter.

As a whole, the volume is a creditable piece of work. Some features, however, need attention in subsequent editions. It is unfortunate, that citations to the sources from which the author draws his examples are often omitted. In matters of detail, lack of care is evident, errors in both titles and the names of authors as well as misspelling being all too common in the bibliographies. Editions which have been superseded are also occasionally included in the lists of references; notable contributions to civic education are omitted. The reference to the Committee on History and Education for Citizenship and its work is incorrect (p. 82). Shortcomings of this sort, however, while regrettable, do not affect the fundamental merits of the author's work. He has rendered a real service to civic education, and his volume is a worthy addition to the growing body of literature dealing with training in citizenship.

HOWARD C. HILL

A contribution to junior high school mathematics.—With the coming of the junior high school there arose a need for new instructional material for the seventh, eighth, and ninth grades. It is interesting to study the attempts of the mathematicians to supply the materials needed in mathematics. Much progress has been made since the appearance of the first book, and certain marked tendencies become more and more apparent. No author now advocates the traditional courses in arithmetic for the seventh and eighth grades. It is generally granted that a considerable amount of material formerly offered in these grades is no longer suitable and should be eliminated; it is also agreed that a certain amount of algebra, geometry, and trigonometry should be included. Much experimentation is needed, however, before we shall know the best arrangement of subject-matter in these new courses. Teachers of junior high school mathematics should not fail to study carefully the recommendations made by the authors of new textbooks in their field.

The authors of *Junior High School Mathematical Essentials*¹ have constructed their textbooks by using as a basis the material of their *Arithmetical Essentials*, Book III. The major aims are, first, "preparation for intelligent citizenship" and, second, "preparation for future courses in high-school mathematics." Accordingly, about two-thirds of the content is arithmetical, dealing with devices for developing proficiency in computation and devoting much space to percentage, business forms, traveling, banking, investments, insurance, taxes,

¹ J. Andrew Drushel and John W. Withers, *Junior High School Mathematical Essentials*: Book I, pp. xii+196; Book II, pp. xiv+238. Chicago: Lyons & Carnahan, 1924.

thrift, etc. The authors have endeavored to discuss these matters in a manner which will appeal to the interest of junior high school pupils and result in appreciation and understanding. The geometry is intuitive, constructional, and mensurational, dealing with such topics as angles, areas, volumes, similarity, and the theorem of Pythagoras, while the algebra gives practice in the manipulation of formulas and equations. Each book contains a brief chapter on graphs.

The arrangement of the materials is mainly topical. Much would have been gained if the authors had applied to algebra and geometry the principle of "continued practice" which they advocate for arithmetical computations. To offer a chapter on graphs and then to neglect hundreds of opportunities to make use of graphs or to fail to use the equation freely after it has been taught represents as much of a loss as to discontinue emphasis on computations after a certain stage of proficiency has been reached. The lack of close correlation of the various mathematical subjects is to be deplored, but the topical treatment will make a strong appeal to the conservative teacher.

E. R. BRESLICH

A history of modern civilization.—"To recall those happenings in the past of mankind which serve to make our world of today clearer to us by showing the long road that man has traveled to get as far as he has" (p. iii) is the aim of a recent book¹ which deals with the story of man's development from the remotest times to the premiership of Ramsay MacDonald.

The work is arranged in seven books, made up of forty-three chapters and 153 sections. Book I tells interestingly, yet tersely, the story of man's progress and his civilizations to the downfall of the Roman Empire in the West and the triumph of Christianity. Book II gives an account of the principal movements and institutions of the middle ages. The third book deals with the discoveries, the Protestant Reformation and wars of religion, and the governmental struggle in England resulting in the supremacy of Parliament. The fourth book treats the rise and wars of continental powers, European expansion, the American Revolution, and the civilization of the eighteenth century. Two hundred and sixty-seven pages are given to these books, while 358 pages are devoted to the last three books on "The French Revolution," "The Nineteenth Century," and "The World War and Reconstruction." Hence the modern age is treated in much greater detail than previous periods, thereby following out the purpose of making the present age clearer.

An effort appears to have been made to free the work from technical words. The style is interesting. Scholarship characterizes the work throughout. Accounts are given impartially. Both Catholics and Protestants are censured for their excesses, and the world-war is not portrayed merely as an attempt of the German Emperor to extend his power, although the Germans receive more

¹ James Harvey Robinson, Emma Peters Smith, and James Henry Breasted, *Our World Today and Yesterday*. Boston: Ginn & Co., 1924. Pp. xiv+626.

blame than any other people. The scope of the work is larger than usual. Arts and sciences receive their share of treatment along with politics, wars, and economics. It is a history of civilization with an optimistic outlook. It closes with these words: "We can at least come to see that there are many evil things in the past which may be overcome, and many promises for the future which we can do something to bring to fruition" (p. 625).

The text abounds in pedagogical aids. At the close of each chapter is a set of classified pertinent questions based directly on the chapter. In addition to the sketch maps scattered through the body of the work, there are placed in the back of the book twenty-six colored maps with explanatory material and exercises. A classified bibliography of fourteen pages, fifteen tables of European rulers, and a self-pronouncing index add to the value of the work. It is profusely illustrated, and eight colored plates give a touch of elegance. It is well adapted as a text in world-history or world-civilization for second-, third-, or fourth-year classes in the high school.

HEBER P. WALKER

A study of educational finance in Iowa.—All too frequently the popular conception of a good financier in education is an administrator who has sufficient political and oratorical powers to persuade the public into floating a school bond issue. School officials often avoid a real attempt at the solution of vexing and complicated financial problems by constructing charts for popular use which show the large amounts of wealth, income, savings, and expenditures for luxuries in the United States as compared with the relatively small sum of money expended for education. Such propaganda is usually sentimental rather than scientific and classes education as a charitable enterprise rather than as a fundamental social institution which must organize its affairs along sound business lines in order to insure its successful perpetuation.

Mounting tax rates and school indebtedness point to the alarming financial condition of the public school system. The recent unprecedented expansion of the system has brought with it a rapidly rising cost, due to the increased prices of commodities and personal services, the large annual increase in enrolments in industrial cities, and the multiplication of school enterprises. These conditions make imperative a sound and intelligent financial policy based on scientific analyses of concrete situations. The Educational Finance Inquiry Commission has made a number of outstanding contributions to the field; one of the most recent volumes of the report deals with school finance in the state of Iowa.

Part I is entitled, "What Does Iowa Expend for Education?" For the sake of uniformity in calculating current expenses the study was limited to the data found in the reports and records of the county superintendents of schools and the state superintendent of public instruction and in the state directories published by the state department of public instruction and the Midland Schools

¹ William F. Russell, Thomas C. Holy, Raleigh W. Stone, and Others, *The Financing of Education in Iowa*. Report of the Educational Finance Inquiry Commission, Vol. VIII. New York: Macmillan Co., 1925. Pp. xxii+280.

Agency. The period from 1910 to 1922 was analyzed for the purposes of the study. The expense for capital outlay was estimated both by the method of cash disbursements and by the method of accrued economic costs. The method of cash disbursements takes into account the actual expenditures for sites, buildings, purchase of equipment, and the interest paid on funds borrowed for these purposes. The method of accrued economic costs considers the depreciation in the value of the plant and the imputed interest on the total investment without regard to the indebtedness on the school plant.

During the period from 1909 to 1922 the total enrolment of the elementary school increased only 1.4 per cent, while the high-school enrolment increased 39.9 per cent. The total cost of all public education, estimated by the method of cash disbursements, increased from about fifteen and one-half million dollars in 1910 to nearly sixty-three million dollars in 1921. The cost of elementary education per pupil in average daily attendance was about thirty dollars in 1911 and about eighty dollars in 1921 and 1922. The cost of high-school instruction per pupil in average daily attendance was about fifty-five dollars in 1911 and about 130 dollars in 1922. More than 82 per cent of the funds for the entire educational program and about 96 per cent of the funds for the elementary and secondary schools considered alone come from the local community. The bonded debt for school purposes increased from about six and one-half million dollars in 1911 to nearly forty-eight million dollars in 1922. In general, there is a bonded debt of more than \$100 per pupil in average daily attendance; the median consolidated school has more than \$250; and in certain extreme cases the bonded debt is more than \$2,000 per pupil in average daily attendance. The cost of all education in the state for the year 1921-22 is estimated at nearly sixty-five million dollars, and nearly three million dollars additional are needed to carry the present program into effect at the present price level.

Part II is entitled, "What Can Iowa Afford to Expend for Education?" Four factors are considered in the analysis of the problem: the economic strength and vigor of the state, the attitude of the people of the state toward education, variations in ability and effort in school support, and the administration of the revenue system of the state. The conclusion is reached that Iowa is economically strong and vigorous. An advance in taxes levied from thirty-one million dollars in 1910 to 105 million dollars in 1922 increased the burden of taxation per unit of real wealth only 40 per cent. The antiquated system of property taxation and the ineffective system of state subventions have delayed the development of a constructive educational program in the state of Iowa. Great inequalities exist because the schools are supported almost entirely by the local communities. There is urgent need for a modern and uniform system of financial accounting.

Five appendixes, which cover about one hundred pages, contain a large amount of supplementary material. One hundred and twenty tables, thirteen diagrams, and five forms are included in the report. Probably this material plays a part in rendering the study more difficult reading than certain of the previously published volumes of the report. A concise summary states the conclusions of the investigation. The study should furnish valuable information to

school people in the state of Iowa and should suggest methods of procedure to students of educational finance in general.

CARTER V. GOOD

Mathematics for the seventh grade.—The first volume¹ of a three-book series devoted to the subject of general mathematics is intended for use in the seventh grade of the junior high school. The text is written by one who has spent many years in studying the needs and interests of the adolescent, and the lessons have been worked out through several years of practice and experimentation in the author's own classes.

Breaking away from the traditional content of the ordinary mathematics text, *Junior Mathematics* presents a body of material that is psychologically sound and pedagogically fitted for the adolescent mind. The interest of the seventh-grade pupil lies in the spatial phases of the busy environment in which he lives, and the author capitalizes this interest by making occasions for first-hand investigation, the pupil using for the purpose such mechanical instruments as ruler, compass, protractor, meter scale, etc., as tools of investigation. The pupil experiments, assimilates, and, in general, is afforded many experiences in informal reasoning before he reaches the formal-reasoning stage of the senior high school. Through the experiences, to quote from the Preface, "quantitative relations are to be studied in three ways: geometrically, as in length, area, and graphs; algebraically, as in formulas, equations, and functions; and arithmetically, as in tables and evaluation."

There are ten chapters in the text. The first five are given over to the study of line segments, angles and line segments together, and formulas and equations growing out of the study of line segments and angles. The pupil finds himself busy at measuring, comparing, drawing, and calculating. His materials are the familiar things of home, school, and neighborhood. He is a surveyor, carpenter, sailor, farmer, flyer of kites, and landscape gardener. He states his conclusions in lines, in decimals, and in mixed numbers, applying the ruler, the protractor, the meter stick, scale drawing, and the graph, and acquires thereby the use of the formula and the equation as tools of thinking. The sixth and seventh chapters are devoted to the circle and to geometric constructions based on the circle, while the eighth chapter gives a more extended and general treatment of formulas and equations. The last two chapters are given over to general practice in what is usually termed arithmetical fundamentals, and they afford abundant practice in operations with figures. The wise teacher will bring in some of this material in the earlier chapters, although there is an abundance of practice on fundamentals throughout the text.

Not only is the subject-matter of the volume selected carefully from the point of view of adjusting the junior high school pupil to his environment, but the course is most sensibly and practically arranged to include the necessary

¹ Ernst R. Breslich, *Junior Mathematics*, Book One. New York: Macmillan Co., 1925. Pp. xvi+280.

elements of arithmetic, algebra, intuitive geometry, and numerical trigonometry, selected for their "thinking value." The author increases the child's interest and likewise his understanding by skilfully motivating each component part of every unit. To a child of the adolescent age this type of subject-matter should make a strong appeal.

The succeeding volumes of the series are awaited with interest.

W. M. ROBERTS

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A study of intelligence tests.—The testing movement of recent years, which has resulted in the construction of many so-called "intelligence tests," has stimulated many questions as to the reliability of such tests. What constitutes intelligence? Is it composed of one element or of many elements? Do the so-called "intelligence tests" really measure the essential elements? These and many other questions are constantly being asked. One way to approach a solution to some of these problems is to study the correlations with regard to the content and form of the tests themselves. Such a study^{*} has been made at Teachers College.

The purpose (problem) of this study is to determine the correspondence between mental abilities as measured by the results of certain tests of the same subjects when tests having different types of content and differences in form are used. If differences in content and form of so-called tests of intelligence have no material effect upon relative results, these properties of tests are not important in test construction and in their selection. If differences either in content or form, or both, materially affect test results, the fact is important in leading toward improvement in intelligence testing [p. 1].

"Content" in the study refers to three types of subject-matter: verbal, numerical, and spatial. "Form" means the objective arrangement in which the tests are presented. The following four are distinguished: (1) completion tests, (2) analogies, (3) generalization tests, and (4) the composite test which is made up of five different tests, all of which are of still different objective composition. The data were derived largely from Thorndike's study of "Mental Discipline in High School Studies." Thorndike used a battery of fifteen tests with 1,039 subjects in a representative mid-western high school. These tests were given two successive years to the same subjects. Two hundred and four of these subjects were also given Terman's Group Test of Mental Ability, Forms A and B. From Thorndike's data Bailer derived coefficients of correlation and intercorrelation as set forth in the statement of his problem. Thus the study is solely a statistical treatment of material gathered by Thorndike. The following is the most important of the many conclusions:

^{*} Edwin Maurice Bailer, *Content and Form in Tests of Intelligence*. Teachers College Contributions to Education, No. 162. New York: Teachers College, Columbia University, 1924. Pp. x+74.

The correlations throughout are positive. This holds between groups of tests when they are combined on the basis of content, verbal, numerical, or spatial; or on the basis of form, completion, analogies, or generalization. It is true of the relation between the various types of tests and the Terman Group Test. There is also consistently positive, but smaller, correlation between the results of the single tests studied [p. 62].

The study is a distinct contribution so far as it goes, namely, its thorough statistical treatment of Thorndike's composite test. Too few subjects took the Terman test to justify any definite comparative conclusions. The style of the book is rather heavy and the treatment of the subject very technical.

JOHN A. NIETZ

Supplementary reading material in science.—Slowly but surely the world of science is being made more intelligible to the average citizen. Every year books of a popular or semi-scientific nature appear. A recent publication,¹ which is intended for juvenile readers, is a worthy addition to the present literature.

The first part of the book deals in a very simple way with the story of the evolution of plants and animals. It is abundantly illustrated with drawings of prehistoric animals. One section of the book is devoted to the sea and another to the rise of man and his adjustment to nature's forces. Taken as a whole, the book presents in an interesting and simple manner the whole story of the earth from its beginning to the present day.

The book should prove valuable to teachers of general science and biology. It can be used satisfactorily as supplementary reading in connection with these subjects. It will also be of interest to adult readers.

W. L. BEAUCHAMP

Guidance in mathematics for the junior high school teacher.—Next to the need of instructional material for junior high schools is the demand for books showing how to teach this material. Junior high school teachers will be interested in the first textbook on the teaching of junior high school mathematics.² The author has succeeded in presenting in a stimulating way the new mathematics to be taught in Grades VII, VIII, and IX. He discusses such important topics of arithmetic as drill, review, checking, approximating results, abbreviated processes, the operations with whole numbers and fractions, percentage, and square root. The new geometry of drawing and measuring is discussed in detail. Finally, the author shows that seventh- and eighth-grade pupils can study algebra with profit if we present it not like the mechanical algebra of the high school but as a tool, stressing its usefulness and making it interesting enough to lead the beginner to continue the study of mathematics.

E. R. BRESLICH

¹ Sidney Aylmer Small, *The Boys' Book of the Earth*. New York: E. P. Dutton & Co., 1924. Pp. 282. \$2.50.

² Harry C. Barber, *Teaching Junior High School Mathematics*. Boston: Houghton Mifflin Co., 1924. Pp. x+136. \$1.20.

A series of popular articles on education by English writers.—Many of the early writers on education attempted to discuss in a single volume most of the problems of the teaching profession. Naturally, the treatment was sketchy and disconnected. Another practice was to include between the covers of one book a number of articles by specialists in the various divisions of the field of education. Obviously, even when the same general topic was discussed, these symposiums did not promote the highest degree of continuity in thought.

That this practice has not entirely disappeared is evidenced by the publication of a new book¹ of the composite type. The Introduction seeks to justify the publication of the articles by the statement that a number of similar books have been on the market for a considerable length of time and have enjoyed a healthy circulation. The twelve articles included were written originally for the *Journal of Education*.

A treatment of "Coeducation" indicates that it is the natural way to educate and that American criticisms of the scheme are due to the lack of men teachers. The "Dalton Plan" and the "Montessori System" are described briefly. A discussion of "Eurhythmics" advocates the combination of physical exercise and music. As in the case of similar schemes, the fact is overlooked that what children need most in the way of physical exercise is natural spontaneous play, together with sports and games. An attempt is made to reconcile the direct method of language teaching and the teaching of phonetics. It seems strange to find in the closing paragraphs of a treatment of the direct method the statement that "grammar must be mastered at all costs" (p. 82). A rather philosophical article finds little difference between intelligence tests and the old-fashioned examination or achievement test. It is felt that "the revival of interest in philosophy in our time is going to mean a revival of interest in the really big things in education" (pp. 94-95). Possibly the author's hope for a revival of interest in philosophy is unwarranted by the facts so far as America is concerned.

Certain so-called "reform" methods of teaching Latin are not far in advance of the traditional methods and offer few suggestions to the progressive language teacher who has seen the possibility of applying some form of the direct method to the classics. Commercial education has advanced much more slowly in England than in France, although rapid progress is being made in the former country. A treatment of reformed methods in mathematics discusses the teaching of arithmetic, algebra, geometry, trigonometry, calculus, and mechanics with no mention of the rapid development of unified courses in mathematics. "The Heuristic Method" is the name given to an English experiment in which certain science classes were conducted according to the principle of self-activity on the part of the pupil. England has not kept pace with America in the matter of the home arts, and domestic science should rank higher in the curriculums of secondary schools of all types. A brief discussion of self-government is given.

¹ John Adams and Others, *Educational Movements and Methods*. Boston: D. C. Heath & Co., 1924. Pp. 190.

The paper and binding of the book are of an inferior quality. The articles contain little information for the student of education. The teacher in the field will profit more from reading in separate volumes complete treatments of the various problems discussed and will be less likely to be confused. Possibly a limited number among the general public will find the rather popular discussions a profitable source of information. The mission of such a series of articles seems to be fulfilled when they have been given to the public in a semipopular periodical, and there should be little demand for them in book form.

CARTER V. GOOD

An intermediate French composition.—The need of occasional composition drill in the intermediate French class has been satisfactorily met by a text¹ that provides fully for sixteen one-hour weekly periods of practice. It is a plain composition textbook, minus accessories except for the usual vocabularies, a synoptic irregular verb list, and a questionnaire that is suggestive rather than complete.

The French text, original, purely conversational in style, and informational concerning twentieth-century Paris and Parisian ways and characters, is paraphrased in English for retranslation. Like other books of its kind using English paraphrases for a composition basis, it occasionally offers in the English turn of expression a patent hint as to the desired French equivalent. This feature of the text unfortunately promotes the ever present tendency in the modern-language novice toward literalism.

Locutions are well handled; they are neither too numerous nor too unusual, and their presence is not unduly forced. The arrangement of the original text and the composition material in sequence prevents too ready consultation of the former in classroom drill, and the equal proportion of the one to the other is well considered. The book is unusually free from inaccuracies.

O. F. BOND

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY, AND PRACTICE

BOOK, WILLIAM F. *Learning to Typewrite, with a Discussion of the Psychology and Pedagogy of Skill.* New York: Gregg Publishing Co., 1925. Pp. xviii+464.

GIDDINGS, THADDEUS P.; EARHART, WILL; BALDWIN, RALPH L.; and NEWTON, ELBRIDGE W. *The Teachers' Book.* Music Education Series. Boston: Ginn & Co., 1925. Pp. viii+142+ii. \$1.00.

HOLZINGER, KARL J. *Statistical Tables for Students in Education and Psychology.* Chicago: University of Chicago Press, 1925. Pp. vi+74.

¹ Urban T. Holmes, *A French Composition.* Columbia, Missouri: Lucas Bros., 1925. Pp. iv+128.

- JOHNSON, BUFORD J. *Mental Growth of Children in Relation to Rate of Growth in Bodily Development*. New York: E. P. Dutton & Co., 1925. Pp. xx+160. \$3.50.
- KLAIN, ZORA. *Quaker Contributions to Education in North Carolina*. Philadelphia: University of Pennsylvania, 1924. Pp. 352.
- LOTZ, PHILIP HENRY. *Current Week-Day Religious Education*. New York: Abingdon Press, 1925. Pp. 412. \$2.00.
- TERMAN, LEWIS M., and OTHERS. *Genetic Studies of Genius*, Vol. I. Stanford University, California: Stanford University Press, 1925. Pp. xvi+648. \$5.00.
- WINSLOW, LEON LOYAL. *Organisation and Teaching of Art*. Baltimore: Warwick & York, Inc., 1925. Pp. 148. \$1.60.
- WOHLFARTH, JULIA H. *Self-Help Methods of Teaching English*. Yonkers-on-Hudson, New York: World Book Co., 1925. Pp. viii+294. \$1.88.

BOOKS PRIMARILY FOR HIGH-SCHOOL TEACHERS AND PUPILS

- ANDERSON, CHARLES J. *The Lincoln Readers*, Book Seven. Chicago: Laurel Book Co., 1925. Pp. xiv+480. \$1.00.
- ANDRESS, J. MACE, and EVANS, W. A. *Health and Good Citizenship*. The Practical Health Series, Book Two. Boston: Ginn & Co., 1925. Pp. viii+376. \$0.96.
- Anthology of French Lyric Poetry*. Edited by Charles Edmund Young. Chicago: Benj. H. Sanborn & Co., 1925. Pp. xiv+160.
- BENNETT, GEORGE E. *Basic Accounting*. New York: Gregg Publishing Co., 1925. Pp. xiv+778. \$5.00.
- CALIFF, GLADSTONE. *Permanent Bird Houses*. Milwaukee, Wisconsin: Bruce Publishing Co., 1924. Pp. 64. \$1.00.
- CHISHOLM, GEORGE G., and BIRRELL, J. HAMILTON. *A Smaller Commercial Geography*. New York: Longmans, Green & Co., 1924 [new edition]. Pp. xiv+302. \$1.65.
- DICKENS, CHARLES. *Pickwick Papers*. Abridged and edited by Douglas Gordon Crawford. New York: Macmillan Co., 1925. Pp. xxiv+362.
- DINSMORE, ERNEST L. *Chemistry for Secondary Schools*. New York: F. M. Ambrose Co., 1925. Pp. viii+574.
- DUFFEY, W. R. *Acting Versions of "Everyman" and "The Second Shepherds' Play"*. Milwaukee, Wisconsin: Bruce Publishing Co., 1925. Pp. 88. \$0.50.
- HANES, ERNEST, and MCCOY, MARTHA JANE. *Manual to Readings in Literature*. New York: Macmillan Co., 1925. Pp. viii+116.
- MARSHALL, L. C. *Teachers' Manual to the Story of Human Progress*. New York: Macmillan Co., 1925. Pp. 38.
- PAYNE, E. GEORGE. *We and Our Health*, Book III. New York: American Viewpoint Society, Inc., 1925. Pp. 192.
- PERRY, FRANCES M. *Progressive Composition*. Yonkers-on-Hudson, New York: World Book Co., 1925. Pp. x+358. \$1.44.

- PICARD, LOUIS BENOÎT. *La Petite Ville*. Edited by Maurice Baudin and Edgar Ewing Brandon. New York: Oxford University Press, American Branch, 1925. Pp. x+136. \$1.15.
- POOLE, ERNEST. *The Harbor*. Edited by E. B. Richards. New York: Macmillan Co., 1925. Pp. xiv+494.
- SOWERS, JOHN IRVING. *The Boy and His Vocation*. Peoria, Illinois: Manual Arts Press, 1925. Pp. 198. \$1.50.
- VAN BUSKIRK, EDGAR F., and SMITH, EDITH LILLIAN. *The Science of Everyday Life*. Boston: Houghton Mifflin Co., 1925 [revised]. Pp. xiv+498. \$1.60.

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AND OTHER MATERIAL IN PAMPHLET FORM

- DAVIS, BLYNN EDWIN. *The Eight Parts of Speech*. Falmouth, Massachusetts: Blynn Edwin Davis, 1925. Pp. 56. \$0.40.
- ODELL, CHARLES W. *Educational Tests for Use in High Schools, Revised*. Bureau of Educational Research Circular No. 34. University of Illinois Bulletin, Vol. XXII, No. 37, Urbana, Illinois: University of Illinois, 1925. Pp. 20.
- Recent issues of the Bureau of Education:
- Bulletin No. 17, 1924—*American School Buildings*.
- Bulletin No. 30, 1924—*Land-Grant College Education, 1910 to 1920, Part I*.
- Bulletin No. 40, 1924—*Legal Provisions for Rural High Schools*.
- Report of the Cambridge Health Education Conference*. New York: American Child Health Association, 1924. Pp. viii+248. \$1.00.
- SEYBOLT, ROBERT FRANCIS. *The Evening School in Colonial America*. Bureau of Educational Research Bulletin No. 24. University of Illinois Bulletin, Vol. XXII, No. 31. Urbana, Illinois: University of Illinois, 1925. Pp. 68. \$0.50.
- STREITZ, RUTH. *Teachers' Difficulties in Reading and Their Correctives*. Bureau of Educational Research Bulletin No. 23. University of Illinois Bulletin, Vol. XXII, No. 30. Urbana, Illinois: University of Illinois, 1925. Pp. 36. \$0.30.

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- Source Book of American History*. Edited for schools and readers by Albert Bushnell Hart. New York: Macmillan Co., 1925 [revised]. Pp. xlviii+444.

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